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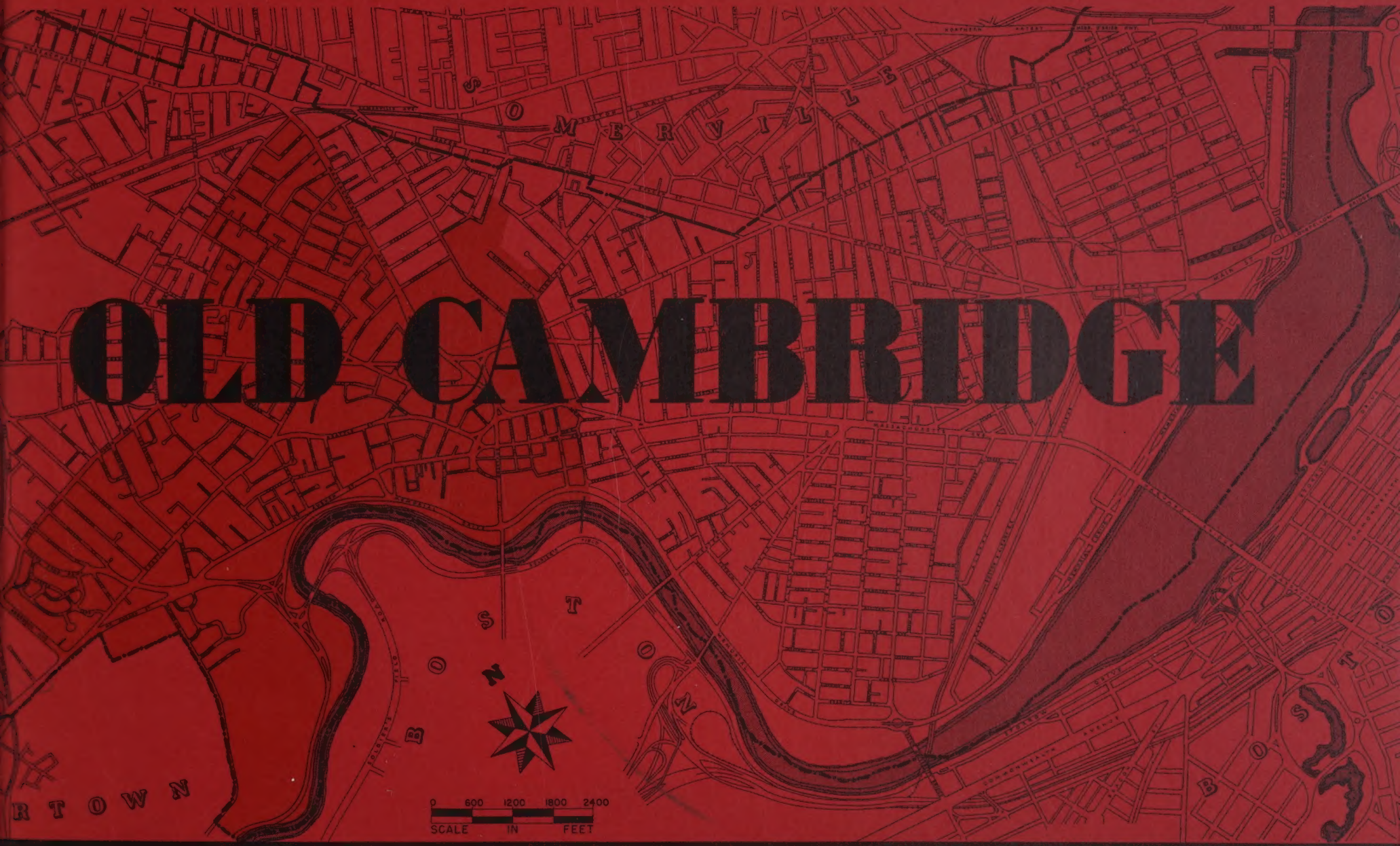

OLD CAMBRIDGE

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SURVEY OF ARCHITECTURAL HISTORY IN CAMBRIDGE

REPORT FOUR: OLD CAMBRIDGE

Bainbridge Bunting
Robert H. Nylander

Cambridge Historical Commission
Cambridge, Massachusetts

Distributed by the M.I.T. Press

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For Albert B. Wolfe

Chairman, Cambridge Historical Commission
November 13, 1963 – June 12, 1973

A citizen who has labored long and effectively for the conservation of his City's architectural heritage.

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1. AERIAL VIEW OF OLD CAMBRIDGE IN 1966 SHOWING HARVARD SQUARE IN FOREGROUND

FOREWORD

This Report carries forward the Survey of Architectural History in Cambridge to include most of the City's surviving pre-Revolutionary War buildings, most of Harvard's buildings, and a wider variety of architectural styles and abundance of examples than prior Reports. It coincides in timing with new concerns for historic districts and sites as part of our environment generated by the Massachusetts Environmental Policy Act (Chapter 781 of 1972), with the reports on *Conservation and Development Too* of the Task Force on Land Use and Urban Growth of the nationwide Citizens Advisory Committee on Environmental Quality, and with the 18-month moratorium on land purchases declared by Harvard last October while it completes in-depth studies of its land and building policies.

All three coincidences mark the new mood in the environmental quality movement, and reflect increasing realization that concern for natural resources is not enough, that escape to the woods à la Marie Antoinette will not save us for long, and that the man-made environment of quality and inspiration in our cities and villages needs equal or greater nourishment and attention if we are to outgrow our love affair with the automobile and make urban living a shared and more satisfying experience for all of us.

The National Environmental Policy Act of 1969 and its Massachusetts counterpart, ambiguous and little understood as they yet are, may be our most ambitious and provocative legislative attempt so far to mold our thinking and morals – going beyond even our attempts to outlaw liquor and war and drugs. They assume that if agencies of government taking actions, and those who seek such actions, are forced to write out what the impacts on the various elements of the environment may be, and what steps they are taking to avoid or minimize such impacts, all will in time learn to see and to avoid or minimize such impacts, and hopefully to do so whether or not required by law to go through the writing exercise. Since our Survey's Reports appraise the historical significance of buildings, sites, and districts throughout our City, the Acts may make our Reports required reading for those who must go through the writing exercise.

The Citizens Committee that spawned NEPA and the wave of antipollution and other environmental acts, national, state, and local, now realize that there has been an overreaction by those who would block all growth, that we must have development of both our cities and our countrysides to accommodate those alive and those to come for the next 75 years even if the fertility rate stays below the 2.1 aim of the zero population growth movement, and that we must now seek to assure that developments wherever they occur be least damaging to the natural environment and to the prior man-made environment of quality and historical significance.

Harvard's moratorium is realization that the futures of our City and of the University are inextricably intertwined, and that each must respect the other if the quality of life for both is to prosper. We hope that our reports and the spirit of NEPA and the Task Force Reports will help both City and University to conserve what is most worthwhile conserving of our man-made environments, to develop check and balance procedures for the purpose, and to accommodate the needed new among the old in ways that will best enhance both.

Much of what this foreword might say about *Old Cambridge* is better said by John Coolidge in his Introduction. More than any one person not on the Commission staff he has contributed to the Survey – to this Report especially, but to the prior ones as well – not only unequalled insights, but many days of conscientious review and checking. Notwithstanding the occasional institutional shortcomings that concern him, what Harvard now conserves is probably more varied, more complete, and more distinguished in its roster of architectural styles than that of any educational institution in our Country, thanks in no small part to concerns like his which help to teach others what is most worth conserving.

The research and survey of Old Cambridge buildings and preparation of the report have involved staff members and several others since work began in 1966.

Dr. Bainbridge Bunting, S.B. University of Illinois 1937, Ph.D. Harvard 1952, Professor of Art and Architectural History at the University of New Mexico, who was primarily responsible for *Report One: East Cambridge* and parts of *Report Three: Cambridgeport,* has been Survey Director since the beginning of the survey in 1964. Dr. Bunting has returned each year from New Mexico to carry out the Old Cambridge survey, supervise the research and photography, and prepare the text of the report.

Robert H. Nylander, B.A. University of Virginia 1964, having worked on the inventory, writing, and much of the research and documentation for this report, wrote portions of the text, carried out review and important revisions of the final draft, particularly the Harvard Buildings section. His knowledge of Cambridge history and sensitivity to source material has been invaluable for all the reports.

Amy E. Cohn, A.B. University of Michigan 1968, A.M. Boston University 1970, coordinated photographs and illustrations for the report, carried out final editing, and publication of the report. As Executive Secretary, she has been responsible for administration of other Commission activities.

Susan Maycock Vogel (Mrs. Robert C. Vogel), B.A. Wellesley 1965, A.M. Boston University 1971, assisted in research of the area, particularly of Old Cambridge architects, and prepared maps and plans for the report.

Isabella Athey (Mrs. I. W. Athey) has reviewed the text through all phases of preparation and has provided valuable proofreading and editorial assistance.

Arthur J. Krim, B.A. Clark University 1965, M.A. University of Chicago 1967, assisted in preparing maps and text for publication. As Associate Survey Director, he is currently carrying out the survey of Northwest Cambridge for the fifth and final report.

Eleanor Pearson, A.B. Radcliffe 1964, now a Ph.D. candidate at the Institute of Fine Arts, New York University, assisted in several ways during the early stages of the survey, particularly in the collection and coordination of source material for Old Cambridge buildings.

Robert Bell Rettig, A.B. Harvard 1961, A.M. Harvard 1963, formerly the Associate Survey Director, now Executive Director of the Massachusetts Historical Commission, who was responsible for writing and editing previous reports, provided much background material for the Old Cambridge report during preparation of the *Guide to Cambridge Architecture: Ten Walking Tours*. Since his departure from the Commission, he has continued to give assistance and advice on Commission publications and activities.

Several others assisted in the Old Cambridge study since its outset in 1966: Norman Gordon, who worked on documentation of certain Brattle Street houses; Rupert B. Lillie, who provided preliminary research; Daniel Reiff, John Marangola, and Henry Bishara who also assisted research efforts; Richard Cheek, Edward Jacoby, and Bonnie Orr Miskolczy, who photographed Old Cambridge buildings; Maureen Clarke Petkus (Mrs. John A. Petkus, Jr.) who was secretary in the early stages of the report.

Two Advisory Committees selected by the Commission provided valuable assistance by reviewing sections of the first draft of the report. The Old Cambridge Survey Advisory Committee, representing various areas and interests in the Old Cambridge community, consisted of Sinclair H. Hitchings, Chairman; John Cobb, Professor John Coolidge, Sheldon Dietz, Mrs. Mason Hammond, Mrs. Cyrus I. Harvey, Jr., Professor Norman Pettit, Dr. Robert Read, Kenneth H. Redmond, John L. Simonds, the late Professor Arthur E. Sutherland, and Mrs. Laurence Wylie. For the Harvard Buildings section, a separate Advisory Committee was formed including Charles W. Eliot, 2d, Chairman, Kenneth J. Conant, Professor Coolidge, Harold L. Goyette, Mr. Hitchings, and Professor Sutherland. Helpful comments were received from William Bentinck-Smith and Harley Holden as well. Mr. Eliot shared his personal files of information on Harvard Buildings with the staff and made extensive suggestions for revisions in the text.

The work of the staff and advisors could not have been carried out without the continuing cooperation of City groups including the Planning and Development, Building, Assessors, and Engineering Departments, the office of the City Clerk, and the Cambridge Public Library. Valuable assistance has been received from private groups as well, particularly the Society for the Preservation of New England Antiquities, the Boston Athenaeum, and Harvard Archives.

The field inventorying for the final *Report Five: Northwest Cambridge* is now substantially complete, and has, among other discoveries of significance, identified a previously unappreciated pre-Revolutionary War house, the Abraham

Watson, Jr. farmhouse at 181-3 Sherman Street, moved from 1840 Massachusetts Avenue in the 1840's. *Report Five* is also expected to include a Preservation Plan for Cambridge, some aspects of which already are under review. A key element may be identification of several "Architectural Conservation Neighborhoods," for which owners and residents might work out preservation incentives or programs for their own administration. Similar protection may be proposed for individual landmarks most worthy of preservation. Recommendations for further listings on the National Register of Historic Places will be included. Wide circulation of Survey Reports to City schools and educational institutions, and banks and other lenders will be encouraged, and further work in due course on significant events and persons associated with particular places, and more in-depth study of particularly significant landmarks. A marker program is hoped to be generated before *Report Five*, especially in connection with Cambridge Common renovations, for which a Certificate of Appropriateness was issued in April 1973.

Albert B. Wolfe, Chairman
Cambridge Historical Commission
June 12, 1973

INTRODUCTION

Old Cambridge is a state of mind. It has had no administrative identity since 1844 when the Great and General Court refused to allow it to become an independent town. It has had no demonstrable physical identity since the 1880's when the last remaining open land along the major highways was built upon and all of Cambridge became a single architectural continuum. Yet the state of mind persists, indeed it grows more sharply defined as other kinds of definition become blurred.

Positively that state of mind is concerned with issues and areas beyond Old Cambridge. The community has always thought of itself as part of the "great world," in whatever way that phrase has been interpreted over the centuries. Negatively it has always been un-neighborly, taking special pride during most of the 19th and 20th centuries in its fancied superiority to just those districts covered by the three preceding volumes of this report. Old Cambridge can at times be confidently conservative, retaining gas street lamps, proportional representation and correct Collegiate Georgian Revival architecture long after these have been abandoned elsewhere. At times it can be the first to import to this country practices or principles from abroad, as the use of vaccine or the concepts of the Bauhaus. But conservative or innovative Old Cambridge is never in the American mid-stream, and is always smugly aware of that fact.

Old Cambridge was the earliest American example of a type of settlement characteristic of this country, the capital: that is, a new town established by citizens of other communities to serve as the headquarters of the government they have in common. It was a capital for a scant eight years. When the government of the Colony moved to Boston, Cambridge was given the College. At that time it became the earliest American example of another type of settlement common in this country, the corporation or one-industry town. This Old Cambridge has remained. But a century or so later it became the earliest (or one of the two or three earliest) of yet another familiar type of American settlement, the fashionable suburb. This, too, it has remained.

Ever since the mid-18th century the University community and the fashionable suburb have developed astonishingly varied patterns of relationship. A professor, Jacob Bigelow, established the most original suburban institution, Mt. Auburn, a fashionable cemetery. Scions of the suburban gentry, like John Chipman Gray, have served Harvard as distinguished professors. Men like Denman Ross or Paul J. Sachs settled and continued to settle in Old Cambridge because here they could creatively employ their wealth and cultivate their intellectual interests without being considered pretentious or eccentric.

Interplay between the suburban and the university communities is in large part responsible for the quality of Old Cambridge's architecture. The area contains at least one building by New England's best 18th-century architect, three buildings by one of America's two best 19th-century architects, and one building apiece by two of the most influential European architects of the 20th century. More significantly, it contains an astonishing diversity of buildings only just below these in quality.

Unaided, Harvard would certainly not have produced its share of this achievement. Professors and the men of affairs they entice as patrons or tolerate as trustees are mediocre judges of contemporary art. Witness the low state of university architecture almost everywhere at almost all times, and the deplorable quality of College portraits. Old Cambridge has been lucky. Repeatedly its cultivated citizens have shamed the university into mending its ways. Harvard's immediate reaction to Tory Row and Christ Church was the vernacular ungainliness of Hollis. The elegance of Harvard Hall came later, a result of government money and official taste. Only after the university had commissioned half a dozen undistinguished buildings from architects like Ryder and Harris, Ware and Van Brunt, or Peabody and Stearns, did the Corporation turn to H. H. Richardson. It seems likely that a Cambridge resident, Edward W. Hooper, persuaded them to make the change. The University's reaction to the arrival of Gropius was to put up the new Hemenway Gymnasium, and shortly thereafter Littauer. Only after gravely weighing for a dozen years the merits of that world-famous architect did Harvard ask him to design a building, the Graduate Center.

Even more striking, it is the suburban neighbors who have effectively fostered the appreciation and preservation of the architecture already here. As late as the mid-fifties Harvard's administrators waited until August when those who cared were away to tear down the federal mansion Shady Hill. Now at last the University has yielded to citizen pressure and is once again preserving in new locations the significant private houses that stand in the way of its building program. Equally, since they were consulted and did not object, Harvard felt free to tear down Hunt Hall.

To this group of dedicated and discriminating residents we owe this book. If, as its text points out, no comparable American community can display such an unbroken chronological range of fine buildings, equally no other American community can boast such a broad, detailed, learned and sensitive study of such a range. Credit must go first to Albert B. Wolfe, the chairman, and to the other members of the Cambridge Historical Commission; next to the members of the Cambridge City Council for their continuing financial support; then to the Commission's dedicated staff of scholars who surveyed Old Cambridge and assembled the information on individual buildings; and finally to Bainbridge Bunting who turned that mass of ordered data into this book.

John Coolidge, Professor of Fine Arts
Harvard University

1A. AERIAL VIEW OF OLD CAMBRIDGE IN 1972

Northwest Cambridge
Cambridge Common
Harvard Yard
Harvard Square
Mid Cambridge
OLD CAMBRIDGE
Cambridgeport
Cambridge Cemetery
SCALE
MILES

3. OLD CAMBRIDGE AND ENVIRONS IN 1640 (BASED ON MAP IN MORISON)

PART ONE: OLD CAMBRIDGE BACKGROUND

This survey of Old Cambridge is intended to provide a frame of reference for the study of its architecture by examining diverse influences—social, religious, economic, cultural—which shaped the community, and to relate them to topographical changes that were taking place in the city. Instead of tracing each set of factors separately, we have tried to gather them at certain key dates in order to give a bird's-eye view. Although the focus is in Harvard Square, the whole of the city is within the cone of vision (Figs. 1-2).

The dates chosen—1630-70, 1770, 1833, 1873, 1930, 1973—serve as convenient reference points at moments in Cambridge history that were both decisive and symbolic. Since profound changes occurred in Cambridge during the first few years of existence, it is necessary to indicate both the initial concept of the town and how in fact it developed by about 1670. A century later the early Puritan character of Cambridge had been modified by a more worldly Tory point of view, while by 1833 the town had reached a plateau after weathering the slumps that came in the wake of the Revolution and the Jefferson Embargo. The first real-estate atlas for the city, in 1873, provides clues to the unprecedented growth of Cambridge following the Civil War. The 1930 view records the city as it had settled down after the enormous expansion of the late 19th-early 20th centuries; finally, that of 1973 shows a city propelled toward change by a quarter-century of prosperity.

1630-70: Beginnings

Cambridge has never been an ordinary place. Even its beginning had a special character: it was to be the administrative capital of the Massachusetts Bay Colony, the residence of the Governor, his assistants, and later the seat of the General Court. Consequently, Cambridge started early in 1631 as a fortified community, the only one in the colony, with particular requirements as to site: it had to be accessible to ocean-going vessels and yet protected from assault by sea as well as by land. Essential, too, were drinking water, good agricultural land, and a position that would be central to the other Massachusetts Bay plantations. Boston and Charlestown had incomparably better harbors, but their exposed situations disqualified them, while the Watertown settlement made a few months earlier in July 1630 was considered too out of the way.

The site chosen late in 1630 for the capital was on the north bank of the Charles River, at the entrance to a small creek (today recalled by Eliot Street), five miles upstream from Boston (Fig. 3). The creek banks were firm enough to provide a landing and the bottom could be dredged, an operation that was carried out in 1631-32. The Charles was deep enough at low tide to accommodate the deep-sea ships of the era, yet the bordering marshes and tidal flats made passage difficult for those unfamiliar with the channel. The latter fact and the limited maneuvering space at the landing would serve to protect the town against pirate raids or attacks by the mother-country in any attempt to revoke the charter granted in 1629. Opposite the new site the south bank was less marshy than elsewhere, thus encouraging settlers eventually to operate a ferry.

There were other advantages to the location: a low hill commanding both the harbor and town site provided a place for a fort, while further from the river a low rise afforded room for a watchtower to protect the land approaches. A short distance upstream a third hill with a good landing of its own could serve as the location for the town windmill. The town site was conveniently level for laying out an orderly system of streets, two springs promised adequate water, and the surrounding countryside was suitable for farming. In addition the "highway" connecting Charlestown and Watertown—in reality not much more than a trail blazed through the forest—ran nearby. On December 28, 1630 the site was officially selected and the laying out began the following March.

Whether the grid of streets laid out for the "Towne" was the product of conscious planning for the new capital, or simply a logical adjustment to a compact fortified site, the result was one of the earliest ordered urban plans in New England and influenced the planning of later New England towns such as New Haven and Hartford.

Undoubtedly the most unusual thing about early Newtowne, as Cambridge was called until 1638, was its systematic fortification, although at a later date some defenses were also erected in Boston. The assumption in 1630 was that if the colony were attacked the inhabitants of other plantations would take refuge in Newtowne; for this reason a series of stockades was put up around the village (Fig. 3). Composed of stakes, willows, and a trench, the "Pallysadoe" of 1631-32 extended in an arc from the foot of Ash Street to the junction of Oxford and Jarvis Streets and possibly beyond. (A remnant of this fortification seems to have been the watercourse along Follen and across Berkeley Street that flowed in wet seasons until storm sewers were built in the 19th century.) For the early defenses all twelve Massachusetts plantations were taxed, Newtowne's share being only one-twentieth of the total £60 assessment: her inhabitants were, nevertheless, charged with maintenance. In 1632 a second line, the Common Pales, was built along the east side of the community, from the corner of Mt. Auburn and Linden Streets to the Charlestown (now Somerville) line near East Cambridge: this barrier seems to have been little more than a high rail fence. In 1636 another line of pales was built along present-day Linnaean Street, an indication that the Cow Common inside the first palisade had proved too small. By 1636 gates were set up where the principal roads intersected these defenses: Massachusetts Avenue near Linden Street, Brattle Street near Ash, and Oxford at Kirkland Streets. Other gates to the Cow Common were added at Linnaean Street and Massachusetts Avenue, Linnaean and Garden Streets, and also between Harvard Yard and the Burying Ground. Later in the century some of these gates were moved further out. The last notice of gates in the town records comes in 1686 in a reference to one at Menotomy Bridge over Alewife Brook (present Massachusetts Avenue at the Arlington town line). But from an early date it seems likely that gates were maintained, not to keep out hostile persons, but to prevent cattle from straying or wild beasts from harming crops or cattle.

Defense construction within the town proceeded more slowly. By 1637 the fort had not been put up; its site near the present Lowell House tower was therefore assigned to the adjoining householder, and as late as 1638 the General Court was remonstrating because the watchtower had not been built. However, since an

area near Harvard Square was referred to in 1640 as Watch House Hill, one may assume that the tower, which also served as an arsenal, had been erected. Yet ten years later that same site was reappropriated for the new meetinghouse, from which it is clear that within two decades of the founding of Cambridge defense had become a dead issue. English ships had not threatened the colony and the Indians had proved friendly, although during King Philip's War in 1676 the colonists became momentarily alarmed and gathered lumber for a new stockade. After the seat of government was shifted to Boston in 1638, the defense of Newtowne remained a local matter, and with no official pressure to maintain defensive works, citizens were allowed to live outside the stockade.

Because of its secure and compact arrangement, the village represented a tiny spot of order on the edge of wilderness (Fig. 4). Its nearest neighbors were Charlestown, four miles to the east, and Watertown, one mile to the west. (At that time Watertown still occupied its original place of settlement at Gerry's Landing; the move toward Watertown Square was not begun until 1635.) The route of the early forest trail from Charlestown to Watertown is still recalled by Kirkland, Mason, and Brattle Streets and Elmwood Avenue. Roxbury, six miles to the south, was reached by a road through Brighton and Brookline now known as Harvard Street. Several other "highways" were allowed when the land was granted in 1632, among them the "Highway to the Neck" (modern Bow and Arrow Streets) leading to the first cultivated fields on Dana Hill and to hayfields near Central Square. Beyond Central Square paths branched off to the oyster banks in the Charles River (near present-day Fort Washington) and to Pelham's Island (now Lafayette Square). Roads that led northwest from the village to "ye great swamp" near present Fresh Pond Circle and to Menotomy (modern Arlington) became Garden Street and Massachusetts Avenue. Less traveled lanes grew up leading to the Common Pales (Dana Street) and to the Little Neck (Putnam Avenue). Thus Cambridge was the hub of a system of trails and river routes, a system that made sense to those breaking through virgin forest if not to a person in 1973 trying to cross town in an automobile.

It is important to realize how directly the location of these primitive routes was determined by the terrain. Brattle Street, a section of the early cross-country path between Charlestown and Watertown, describes a deep arc between Mason Street and the junction with Elmwood Avenue in order to skirt an extensive boggy area near Sparks Street and the river and another marsh near Craigie and Berkeley Streets. The more direct route westward from Brattle Square via Mt. Auburn Street was not put through until 1803 when a causeway across the marsh was built, using gravel from Simon's Hill (the site of Mt. Auburn Hospital). Though Massachusetts Avenue led west to Concord, it started due north from the Common in order to avoid Avon Hill. Quite logically Garden and Sparks Streets followed lower saddles of the glacial ridge separating Old Cambridge from Fresh Pond and the Great Swamp; Putnam Avenue followed a low ridge to Little Neck because the land on both sides was swampy; lower Massachusetts Avenue bends to the south around the base of Dana Hill on its way to Central Square. Only Kirkland Street was straight because the terrain east of Cambridge was relatively level; nevertheless, the Pyne Swampe beyond Jarvis Field discouraged road-building in a northeasterly direction.

Although Newtowne was conceived as a seat of government, agriculture was not neglected. Besides a comfortable house lot that provided space for kitchen gardens, each settler was allotted fields for cultivation. East of the village, but inside (south of) the Common Pales, these allotments lay on the slopes of Dana Hill in three sections: "Planting Fields," "Small Lots," and "Great Lots" (see *Mid Cambridge*, pages 11-13), with Dana Street separating the first two. The "Small Lots" varied from 2 to 5½ acres; "Great Lots" were as small as 6, others as large as 63 acres. The amount of land allowed to each settler differed greatly and was apparently fixed by wealth and standing in the community. Although to obtain the exact formula of distribution now seems impossible, it appears that investors in the Massachusetts Bay Colony were supposed to receive 200 acres for each share held, that colonists who could pay their own passage were eligible for 50 acres, and that every freeman had the use of at least 4 acres. Indentured servants were not permitted to hold land nor to vote until their indenture of seven years had been worked out, but the number of such people in Cambridge is difficult to determine.

When a new contingent of thirty-nine families arrived with Thomas Hooker in 1633-34, more dwelling sites and arable land were required. Even though a few of the first house lots were still unoccupied, there were not enough remaining for the newcomers within the original grid; two new regions were therefore opened for settlement, the West End between Brattle Square and Sparks Street and the West End Field in the vicinity of Linnaean, Garden, and Raymond Streets. The forty-one lots here were considerably larger than those in the center—some as much as 4 acres—and the West End, at least, was intended for home sites as well as for planting crops. A second division in 1638, called the New West Field, partitioned Avon Hill into twenty-four small farms. Such divisions modified the original scheme since dwellings were no longer to be separated from fields; though most of the new houses were outside the fortified area, none was distant. Several years were to pass before colonists would be permitted to settle in remote portions of the grant.

The original concept of land distribution in Newtowne had designated three kinds of ownership: house lots within the village, privately owned fields for cultivation outside the village, and land held for the common good. Such a system perpetuated the pattern of land use in medieval England. By far the greatest portion of land was held in common, because as late as 1647 only 2618 acres (776 of them arable) had been assigned to individuals. Rather than being a public park as we have come to think of the Cambridge Common today, the common lands then formed a vast reservoir of undivided land that could be granted in the course of time to individuals as farms or set aside for special use (Fig. 4). Thus the present Common, which originally extended as far north as Linnaean Street, was primarily a cow pasture with the part nearest Harvard Square used occasionally for military drill. The portion in North Cambridge between Rindge Avenue and Alewife Brook became after 1638 the Ox Pasture; that from the brook to Pleasant Street in Arlington was used alternately for herding sheep or cows; while the Cambridge Rocks, the hilly zone from Pleasant Street to Arlington Heights, was the source of wood for building and fuel.

Surrounded by seemingly endless forest, the early boundaries of Cambridge were indefinite. In the eyes of the founders Newtowne was simply one more plantation within the Commonwealth over which the Governor and his assistants had jurisdiction. The original donation of land was probably envisioned as

1. THE TOWNE
2. SEVERAL GRANTS TO IMPORTANT INDIVIDUALS, 1633
3. APPROXIMATE LOCATION OF FIRST BURYING PLACE, ABANDONED BEFORE 1634
4. FIRST WATERTOWN SETTLEMENT, ABANDONED 1635
5. BURYING GROUND, ENCLOSED 1636
6. THE TEACHER'S LOT, GRANTED TO REV. THOMAS SHEPARD, 1638
7. PASTURE LOT GRANTED IN 1638, PROBABLY TO THE RULING ELDER EDMUND FROST

encompassing no more than the village: Eliot Square to Linden Street, Massachusetts Avenue to the river. By 1632, when the first company of settlers "sat down," Newtowne consisted of some 1000 acres enclosed by the Palisade and Common Pales, that is, from Ash Street to East Cambridge and from the Charles River to a line running more or less from Widener Library to Inman Square. Between 1632 and 1636, when the General Court form of government gave the inhabitants a voice, additional land was granted to Cambridge, including Brighton, Newton, Arlington, Lexington, and parts of Lincoln and Bedford. These additions resulted from recognition that the town needed reserves of land to give to future colonists and to provide for increasing population. A final grant in 1641 (confirmed in 1644) carried the boundaries to the Merrimack River, a grant made for the benefit of members of the Cambridge church, not to the town at large. At that point, Cambridge extended some thirty-six miles, from Billerica to Newton, in the form of an irregular Y that was only one mile wide at Harvard Square.

Hardly had these limits been attained when a process of contraction set in, as outlying settlements broke off to become separate communities. This began when farms were granted to Cambridge residents at considerable distances from the center. When enough families had gathered in a given area to support a meetinghouse of their own, it was inevitable that they should want to break away from the parent town; otherwise weekly attendance at and financial support of the meetinghouse in Harvard Square was compulsory. Farmers who settled Shawshine in 1652 were able to separate as Billerica in 1655. Cambridge Village, at first called Southside and settled as early as 1638, was sufficiently populated by 1664 to have a meetinghouse of its own, but it did not become the independent town of Newton until 1688. Cambridge Farms, settled in the 1630's and permitted to organize a parish in 1696, became the town of Lexington in 1713. And though Menotomy, long called West Cambridge and then Arlington, possessed farms by 1638, it did not become a separate parish until 1732 nor a town until 1807. South of the river, farmland in Little Cambridge was granted in the 1630's; the inhabitants formed a parish in 1779, the town of Brighton in 1807.

Newtowne had been created to meet conditions predicated on certain assumptions, but when those assumptions proved irrelevant, the community was left to develop with greater freedom. The longer the colonial government survived without attempts by Britain to revoke the charter, the less reason there appeared to be for the administration to remain bottled up in a place of limited accessibility, especially when the geographic and commercial advantages of Boston were overwhelming. Even the windmill failed to operate satisfactorily on its hill overlooking the Charles and was moved to Boston in 1632. For a short time rivalry existed between the two towns, but Boston won out, although the shift of government from Newtowne was not precipitous. The General Court, which was assuming more and more responsibility, remained in Newtowne after the Governor settled in Boston in 1631, but it, too, moved in 1638. The change of name from Newtowne to Cambridge in the same year punctuated the chronology and symbolized a transformation.

The founding of Harvard College in 1636 alone kept Newtowne from sinking into the quiet routine of an average farming community. The college was established with a grant from the General Court, derived from a levy placed on the various Massachusetts towns, and it was assisted by a legacy from John Harvard, an English minister living in Charlestown. The new name was indicative of the role the community was henceforth expected to fill.

Another type of change was taking place in the realm of landownership. In contrast to the early plan for an agricultural community in which each settler owned his planting fields, a process of consolidation of small holdings under a few landowners had set in. One opportunity for this came with the departure in 1635-36 of the Rev. Thomas Hooker and his companions for Hartford; another followed the severe economic conditions of 1640 when land prices fell to one-fifth of their former value. Edward Goffe, for example, then bought up all the "Planting Fields," and Herbert Pelham bought four of the twelve "Great Lots" as part of his 118-acre farm which later became the Inman estate. Atherton Hough put together another four lots to create a 260-acre farm later known as Lechmere's Point. With fewer people controlling the land nearby, the remaining townsmen supported themselves as tradesmen and craftsmen or petitioned for grants of land in more removed areas. Such allocations so diminished the reserve of common land that by 1670 the common pasturage convenient to Cambridge had been reduced to 260 acres (not including woodlands and pastures in Arlington and Lexington).

By 1670 the physical appearance of Cambridge had also changed and was taking on the form it would keep for the next two and one-half centuries. The fortified character had entirely gone. The community was still village-oriented, but a sprinkling of outlying farmhouses stood along the highways that radiated from the center. The whole of Cambridge in 1670 boasted perhaps 130 houses for about 140 families: exactly how many of these stood in Old Cambridge itself is impossible to say—perhaps 75. Although repaired and enlarged, many of these dwellings went back to the first settlement. No record exists of the number of original houses that had burned or been pulled down, but an idea of the amount of building can be gained from licenses (somewhat like modern building permits) to cut timber from the common woodlots. In 1650, for example, licenses were granted to fell trees for the repair of eight houses, for an addition to one, and for the construction of another; in 1669, for the repair of five houses, for additions to ten, and for two new dwellings. (The architecture of these buildings is discussed in Part Four.) Along with these changes came several new public buildings: a meetinghouse in 1650, a schoolhouse erected in 1669, a parsonage in 1670, and a new hall for Harvard College (1672-77).

The time had also come for civic improvement. The "Great Bridge" across the Charles was built in 1660-62 at the foot of Boylston Street. Since it provided access to the road to Boston via Roxbury and benefited the entire colony, it was paid for by a general levy. Although the ferry was discontinued upon completion of the bridge, the town wharf of 1651 continued in use and several warehouses were erected there, proof that Cambridge still retained commercial importance of a sort. Between 1650 and 1660 records indicate that public roads were improved. In 1671 the town undertook the construction of a 4-foot stone wall along part of the Watertown boundary: this extended from the Alewife brook along Concord Avenue to Mill Street in Belmont. In the same year, Will Barrit

received permission to drain the pond on his land between Dunster and Holyoke Streets, approximately on the location of the present banking drive-in window below Holyoke Center.

1770: Puritans and Tories

The way of life and the appearance of Cambridge on the eve of the Revolution have long been topics of interest and research. In a political sense the town was about to enter upon its most conspicuous role in colonial history, while in cultural terms it presented an interesting contrast between Puritan and Tory societies living side by side.

By 1770 the boundaries of Cambridge had shrunk to manageable limits. Remote satellites such as Billerica, Newton, and Lexington had detached themselves as separate townships. Arlington and Brighton, though still part of Cambridge, had their own meetinghouses and schools as well as some degree of autonomy in local affairs. In East Cambridge there was as yet no trace of settlement despite proximity to Boston. The western boundary of Cambridge had recently (1754) been moved from Sparks Street to what would become Mt. Auburn Cemetery; by this expansion the town annexed several farms that had previously belonged to Watertown.

According to a provincial census of 1765 published in the *Vital Records of Cambridge*, the population of all parts of Cambridge was 1571, of which 785 seem to have resided in districts that are within the city limits of today. The total figure included 524 in Menotomy and 262 in Little Cambridge. Exactly how many lived in Old Cambridge itself is impossible to say, but the college population added another 160. A 1781 tax record enumerates 777 acres of tillable land, 1402 acres of marsh and meadow, 1446 of mowing fields, and 3523 of pasture. Significantly, the figure for arable land is very close to that recorded in 1647–776 acres–but in the 17th century the extent of marsh and meadow had been only about half the 1781 figure (748 acres), and no mowing fields or pastures were listed. Since both inventories are concerned with private (taxable) land, the comparison indicates that only land suitable for cultivation was divided in the early period, and that secondary land for pasturage, meadows, etc. was distributed to individuals much later.

Although the population had grown moderately, there had been little fundamental economic change as far as the average man was concerned. The same basic trades were represented in 1765 as in the 17th century, though in slightly larger numbers: blacksmiths (2); carpenters (5); shoemakers, tailors, and tanners (3 each). Several new occupations had been added: barber, brickmaker, cooper, currier, distiller, glazier, hatter, and saddler. And new types of services are represented by a counting house, a distillery, and three law offices. The number of shops had grown from five to nineteen.

In place of the rather homogeneous citizenry of the 17th century, Cambridge before the War of Independence had become separated into two distinct groups, Puritan and Anglican. The Puritan descendants of the early settlers constituted more than 90% of the population; as farmers or as artisans and tradesmen just mentioned, most of these people had few outside economic ties and relied upon local resources for their livelihood. Several depended on the church or college, but their outlook also was parochial. When the political crisis arose, they opposed the Crown.

The smaller group was loyalist, oligarchic, and Anglican. Consisting of hardly more than a dozen households, many related by marriage, this coterie lived apart from the mainstream of village affairs. A few, like the Brattles and the Foxcrofts, were descendants of 17th-century Cambridge families that had acquired wealth and fallen out of sympathy with Puritan customs; others like the Phipses and Vassalls had moved here in the second quarter of the 18th century and were later joined by others of like interests. These families relied on income from outside, whether from West Indian plantations, profits from Boston shipping houses, or stipends for service to the colonial government. They entertained lavishly and created an aristocratic order that overlay the Puritan hierarchy while not competing with it. Of this worldly circle the Puritans were neither envious nor approving.

Just what initially attracted the first generation of these people to Cambridge can only be surmised. Although some of the men had attended Harvard College, it was hardly the dominant Puritanism of that institution that drew them. More likely the attraction was the proximity of Cambridge to Boston, then the largest English-speaking community in the New World. In an era of unimproved dirt roads, the fact that Cambridge was accessible from Boston by boat must have been an inducement of the same kind that drew the Royalls to Medford and Governor Shirley to Roxbury. In other coastal towns also wealthy merchants were building country seats by mid-century. And once a few families had established a social order in Cambridge, others of like tastes or with marriageable daughters were naturally attracted. The Tory Row circle before the war was closely bound by intermarriage; among the dozen or so families, three of the matrons were born Vassalls, three were daughters of Spencer Phips.

How these people used their estates is a matter of speculation. The size of holdings ranged from John Vassall's and Ralph Inman's of nearly 100 acres, through an average 35 to 40 acres surrounding the Lee, Ruggles, and Oliver houses, down to Henry Vassall's 9 acres (Fig. 5). Although the land was cultivated to some degree, none of the properties was large enough as a farm to have supported life on the grand scale described. From indirect references it seems likely that these estates were primarily intended as country houses with the immediate grounds developed as garden settings. For example, Craigie's inventory of 1820 of the former Vassall house refers to the land surrounding the house as the "garden" and to the remainder of the estate as the "close." The Foxcroft estate of 120 acres appears to have been more actively farmed than the others.

One cannot write categorically, but for most of these families their Cambridge estate seems to have been a principal residence. Men like East Apthorp and David Phips appear to have lived here the year around. William Brattle, John Vassall, and Richard Lechmere owned houses in Boston, but the locations suggest that these were rental properties. Only John Vassall seems to have owned what might be called a proper town house (the former Faneuil house), but that

5. OLD CAMBRIDGE ESTATES IN 1770

was not acquired until 1772. Despite their plantations in the West Indies, the Vassall and allied families appear to have resided all year around in Massachusetts. The men visited the plantations at intervals, but the malaria-stricken islands were unhealthful, and when the families fled Boston during the Revolution, they went, not to their island plantations, but to Halifax and eventually to England.

Most members of this elite lived at the west end of town along the Watertown road, known by the name of Tory Row; the rest resided on the eastern edge of Old Cambridge. Here the new Apthorp mansion of 1760 stood on land between what were later laid out as Linden and Plympton Streets. Originally two stories high, of considerable architectural distinction, and surrounded by terraced gardens, this house contrasted strikingly with its neighbors. (Land for the establishment had been obtained by consolidating four 17th-century house lots.) Beyond it, on the site of St. Paul's Church on Arrow Street, stood the house of David Phips. Built about 1725 by his father, Spencer Phips, and possessing extensive gardens, this house in turn replaced one of the town's finest 17th-century dwellings, that of Daniel Gookin. Some distance eastward and near the present City Hall was the Inman mansion of 1756, and northeast of town on the Charlestown road the Foxcroft mansion (both estates discussed in *Mid Cambridge*). Midway between the eastern and western groups the families erected their own place of worship, Christ Church (Fig. 301).

Houses of the wealthy differed as much from vernacular building in size, design, and setting as the aristocratic habits of their owners contrasted with simple Puritan manners. Most Puritan dwellings were small and conservative in design, but perhaps only one-quarter (approximately 23) of the houses within the dozen square blocks granted in 1632 actually dated back to the 17th century. Eighteenth-century representatives of this class of building are: the James Munro house (before 1765) at 8 Willard Street, the Aaron Hill house (c. 1754) at 17 Brown Street, the John Hicks house (1762) at 64 Boylston Street, and the Read house of about 1772 on Farwell Place. A dwelling like Edward Marrett's (c. 1760, formerly at 77 Mt. Auburn Street) incorporated a workroom or shop without sacrificing domestic scale and appearance. In the course of the century, the homes of prominent Puritans occasionally grew larger in scale, like the Wadsworth house (1726; Fig. 103) or the Hastings-Holmes house (c. 1737) or Professor Sewall's three-story dwelling of 1765. Yet in absence of architectural display these houses were almost as conservative as those of tradesmen.

1833: Not Yet a City

By 1833 Cambridge had reached a plateau. The town had survived the severe economic trials that came in the wake of the Jefferson Embargo (1807) and the War of 1812, crises that dashed Cambridgeport hopes of becoming a deep-sea port and delayed the commercial expansion of East Cambridge. Since it was not oriented to commerce, Old Cambridge had been less drastically affected and had enjoyed moderate expansion, as one can see from the detailed map drawn by Alexander Wadsworth in 1833 (Fig. 6).

By the 1830's the boundaries of Cambridge had been whittled down to present alignments. Both the Second Parish (successively known as Menotomy, West Cambridge, and Arlington) and the Third Parish (Little Cambridge or Brighton) had broken away as separate towns in 1807. More than compensating for their loss in terms of population was the settlement of East Cambridge and of Cambridgeport, areas hitherto unoccupied. Despite the depression, they soon grew so rapidly as to rival Old Cambridge and to demand a voice in the town government. In 1812 East Cambridge acquired the courthouse, and in 1832 Cambridgeport became the seat of the town hall.

The 1830 population of Cambridge—numbering 6072—was undoubtedly more homogeneous than it had been before the Revolution or than it would be twenty years later. The aristocratic, Anglican loyalists had nearly all moved away; how completely they vanished is indicated by the fact that after the Revolution only two persons remained of the sixty-two contributing to the erection of Christ Church fifteen years earlier (1759). The new citizens were still mostly Yankees from Boston or from New England farms; immigration from Ireland and Germany did not begin for another decade. Despite ethnic homogeneity, however, all was not calm; in 1829 Old Cambridge was racked by the controversy that split the religious community into separate Congregational and Unitarian societies.

Nor did the Tories' departure eliminate inequalities in wealth and education. A few well-to-do families like the Lees and Bordmans remained on their properties which had escaped confiscation. They were joined by patriotic entrepreneurs like Andrew Craigie and Elbridge Gerry who had amassed fortunes during the Revolution, by merchants from East Cambridge or Cambridgeport like Oliver Hastings and Thomas Whittemore who were in the process of building fortunes, and by a few Boston merchants like Nathaniel Ireland, William Gray, and John Phillips who found Cambridge a pleasant place in which to live, if only for weekends or summers. These people acquired the Tory estates or created new ones with ample houses like The Larches (1808; Fig. 143), Shady Hill (1806), Andrew Bordman's place on Hampshire Street (1805), or John Appleton's house at 163 Brattle Street (1810). In addition to these, a number of spacious houses were built around the Common or in situations further removed like lower Brattle or Quincy Streets. Typical of these were the Fay (1807; Figs. 137-138), Dana-Palmer (1822), Warren (1833), Nichols (1828) houses, or the former Professors' Row on Kirkland Street begun in 1820. A few large residences were also built nearer the center like William Winthrop's on Arrow Street on the site of Spencer Phips' 18th-century house.

In contrast to this upper stratum, the majority of the population worked as artisans and small tradesmen or was employed in livery stables, boarding houses, garden work, and similar activities. They lived in dwellings put up during the previous two centuries or in new structures interspersed between the older buildings. The original center of town seems to have been not too unlike its form of 200 years earlier. Descriptions suggest a dilapidated and dingy look, with a number of ancient, dark, 17th-century houses with overhanging stories and gables, which had descended to use as stores and tenements. Spaces between the old houses fronting the narrow streets were being filled in with new construction (Fig. 37B). Prosperous citizens, if they stayed in the center at all, lived on Winthrop Square or east of Holyoke Street.

Serious farmers had moved out of Old Cambridge, although some residents undoubtedly kept kitchen gardens, and several of the new estate-owners like John Chipman Gray were very interested in horticulture. Indicative of the lessened reliance of each family on growing its own food was the demand for a produce market, which resulted in a wooden market building being erected in the middle of Harvard Square in 1812.

A topographical factor of utmost importance was the construction of two bridges across the Charles River: the West Boston Bridge of 1793, where Longfellow Bridge now stands, and the Canal or Craigie Bridge of 1809, almost on the site of the Charles River Dam. By linking Boston with Middlesex County, the bridges drastically changed the orientation of Cambridge. Whereas most travel in Cambridge heretofore had been local, between the village center and its outlying farms and agricultural satellites, the new bridges placed the community on a direct line between Boston and the more distant towns and countryside of western Middlesex County. Farmers bringing livestock and produce to market could now do so without transferring to the Charlestown ferry or detouring through Roxbury. A system of turnpikes and highways sprang up, radiating from the two bridgeheads, and as a result Cambridge Common found itself the intersection of roads leading from the bridges to Watertown and Lexington. The construction of the Concord Turnpike in 1803 further amplified the role of Old Cambridge. Moreover, these early highways later became the backbone of the Cambridge street system, as Wendell Garrett pointed out in his excellent article in the 1964 *Proceedings* of the Cambridge Historical Society.

If the economic consequences of the bridges were less striking in Old Cambridge than in East Cambridge or Cambridgeport, which were closer to the Boston markets, the old village was nevertheless brought into the orbit of the city by means of horse-drawn conveyances. The oldest corridor of transportation and the most important to the subsequent development of the city was the Massachusetts Avenue-Main Street-West Boston (now Longfellow) Bridge axis (the present route of the subway). The earliest public service over this route was a daily stage established by 1795. In 1826 hourly runs (costing twenty-five were established, apparently the first high-frequency transit route in America and one that developed two years before the appearance of the omnibus in Paris, three before those in London. In the mid-1830's the old stage equipment for

6. WADSWORTH MAP OF CAMBRIDGE, 1833

these "hourlies" was replaced by large-capacity omnibuses. In the middle forties and fifties additional omnibus lines were inaugurated, which focused on Harvard Square: along Brattle Street to Mt. Auburn Cemetery (1845), on Broadway (1846), on Harvard Street (1848), on Cambridge Street to East Cambridge (1852), and briefly along North Avenue to Porter Square in 1856 (Fig. 9).

For the brief period 1849-55 Harvard Square also enjoyed passenger service to Boston over the Fitchburg Railroad, but this proved unprofitable and was discontinued. Otherwise Cambridge was bypassed by railroads during their epochal development in the 1830's, and it was not until 1875 that the city was provided with permanent freight connections. The Wadsworth map of 1833 indicates but a single wharf, that built in the 1650's, owned by the college and used for unloading fuel (Fig. 6).

Old Cambridge was still completely surrounded by fields and marshes, so that it was possible for Josiah Coolidge and George Brimmer in the 1820's and John Palfrey in 1831 to assemble new and fairly large tracts in addition to the existing 18th-century estates. Around Harvard Square considerable building was going on and several old house lots and small fields were subdivided. One parcel thus broken up on lower Brattle Street had been part of the Brattle estate; its development in 1827 resulted in the beginning of Church Street, which was not completely cut through until 1834 to connect with the "Way to the College Woodyard" nor widened until 1926. Other "subdivisions" included the Hunnewell house lot at approximately 3 Garden Street on which ten house sites and Appian Way were laid out in 1800 or the Munro house lot at 83 Brattle Street through which James Street was cut in 1807. East of the village the grounds surrounding the Apthorp house were divided into lots and Linden and Plympton Streets laid out in 1803. But about all these undertakings there was a haphazard quality in comparison with the systematic approach of the founders of Newtowne. Most of the new houses were of medium size, like 13 St. John's Road, which formerly stood at 14 Appian Way. There was also some larger construction: two new churches erected by opposing factions of the old Congregational meeting and a certain amount of commercial building around Harvard Square. In the course of the 1830's the square was finally encircled by buildings, so that any subsequent construction could be accomplished only after demolishing an existing structure.

A growing sense of civic awareness was manifested when in 1830 a group of private citizens requested permission to level the Common, plant trees and shrubs, and surround the area with fencing—all at their own expense. Although this public-spirited proposal met with strong resistance from some merchants and traders, who feared that the fence would impede the driving of livestock to market in Boston, it was finally approved and the Common was enclosed. Another improvement that focused attention on Cambridge and brought many visitors to the town was the development of Mt. Auburn Cemetery, in the 1830's. A botanical garden as well as burial ground, it was the first cemetery in this country to be planned as a romantic "rural" park (see Part Three).

Symbolic of the end of the old and the beginning of the new were various changes in street names. The simple, descriptive terms of the 17th century, like Wood, Water, Spring, gave way to names based on historical associations. Water

7. WALLING MAP OF CAMBRIDGE, 1854. SECTION SHOWING HARVARD SQUARE

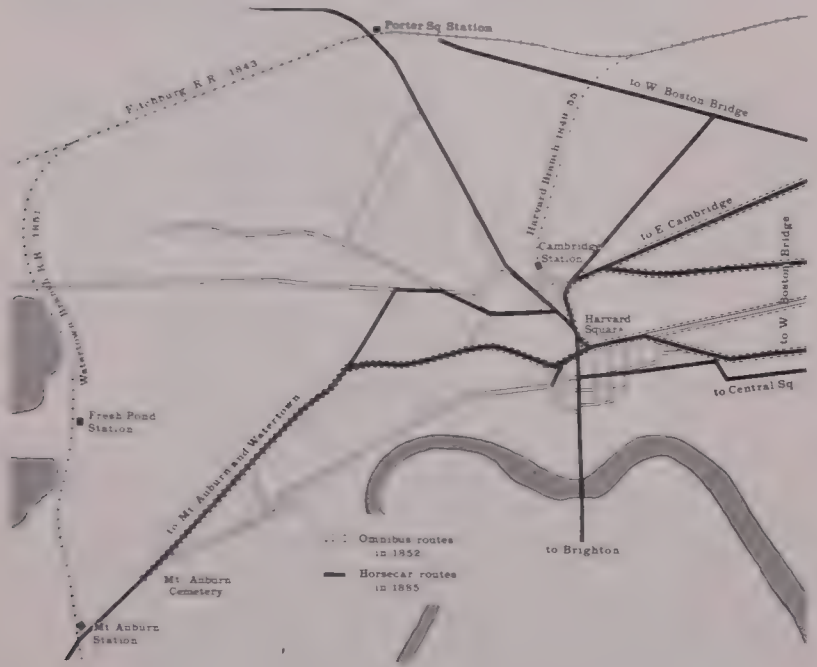
Street was renamed Dunster in 1838, while the name of Wood Street was twice changed, to Brighton in 1838 and to Boylston in 1882; Crooked Street, which had been straightened in 1793, was renamed Holyoke. The most appropriate end of the old order, however, was provided by the closing of *The Registere Booke of the Lands and Houses in the Newtowne* on February 19, 1829, a complete record kept since April 1634 of all the Proprietors' transactions relating to grants of land. In 1846 Cambridge was incorporated as a city and abandoned the town-meeting form of government.

1873: Civil War Expansion

The forty years between the Wadsworth map and the appearance of the city's first real-estate atlas in 1873 was a period of growth and change, during which a population increase of 30% within a decade was not unusual (Figs. 6-8). By 1875 Cambridge had almost 48,000 inhabitants. The main cause of this expansion was the industrial prosperity brought about by the Civil War, especially evident in this part of New England. A secondary cause was the introduction of horsecar transportation, which made it practical to work in Boston—also growing very rapidly—yet to live at a distance.

8. 1873 ATLAS OF CAMBRIDGE. PLATE SHOWING HARVARD SQUARE

9. OMNIBUS AND HORSECAR ROUTES FROM HARVARD SQUARE



Initially there were three horsecar lines, which replaced omnibuses in 1856 on Brattle Street, on North Avenue, and on the Massachusetts Avenue-Main Street-West Boston Bridge routes (Fig. 9). Between 1857 and 1863 the remaining omnibus lines to Harvard Square were converted to horsecars and the Mt. Auburn and Porter Square runs were extended to Watertown and Arlington. An additional (alternate) route to Mt. Auburn Cemetery via Garden and Craigie Streets was opened in 1863. Thus by the Civil War Harvard Square had become a focus of car routes between the outer suburbs and Boston, a condition reflected in the construction in 1860 of a brick stable and wooden carbarn on Dunster Street. The location of the line on Brattle Street resulted in the widening of that street in 1871.

Economic expansion in the 1880's generated a number of secondary car lines which also terminated in Harvard Square. Between 1881 and 1884 routes were opened on Boylston, Kirkland, and Mt. Auburn Streets, but these lines were short-lived; upon the consolidation of the Cambridge lines into the larger metropolitan system they were discontinued. The next important change came with the introduction of electricity in 1889-90 when a trolley was constructed along Massachusetts Avenue (Fig. 10). As a similar line was strongly opposed by residents of Brattle Street, two alternative routes were built along Mt. Auburn Street and Aberdeen-Huron-Concord Avenue, opened in 1894. Between 1909 and 1912 the present subway system was constructed.

10. TROLLEY AND SUBWAY ROUTES FROM HARVARD SQUARE

Cambridge industry, its basis and extent, have been discussed in Reports One and Three of this series. Suffice it to say here that in 1875 the 211 manufacturing firms had an annual product valued at over $15,000,000. How drastically the economy had been transformed is indicated by comparing this sum with the $87,000 then derived from agriculture. In this growth Old Cambridge had little share, because it lacked the conditions that drew manufacturing to East Cambridge and Cambridgeport–juxtaposition of railroad and water transportation combined with proximity to Boston. Here only four factories operated in 1873: the Jones Carriage Company housed in a four-story building at the corner of Church and Palmer Streets, a planing mill on Boylston Street, the Reversible Collar Company on Arrow Street ("Famous flexible finish, Collars cannot crack"), and the University Press in a defunct hotel on Brattle Square. One other enterprise of some size consisted of the stables and barns of the horsecar lines.

The Cambridge Gas Company had originally settled (1852; Fig. 67) on the slopes of Windmill Hill at the foot of Ash Street, appropriately the site of the town's first, although unsuccessful, commercial undertaking, the windmill of 1632. But in 1872 the gas works were moved downriver to Broad Canal in Cambridgeport where coal barges could unload without having to navigate beneath the new bridges over the Charles.

Educational institutions were beginning to be a primary economic asset of Old Cambridge by the second half of the 19th century. In 1869 Harvard College had 529 undergraduates, 514 graduates, and a faculty of 24. In 1867 the Episcopal Theological School was opened, the first of several later institutions that would eventually settle in the vicinity of Harvard Square. With the increase in students, a number of special shops and services catering to them appeared in the square.

The sociological structure of the city was considerably more complicated than it had been in 1833. Large-scale immigration began in the late forties, attracted by the factories of East Cambridge and Cambridgeport; it was, conversely, this labor force that made possible industrial growth. Social stratification was now apparent, not only between rich and poor but also according to national origin and–following the arrival of the Irish Catholics–to religious affiliation. Old Cambridge contained a higher proportion of native-born Yankees than did other parts of the city, yet even this group was more diversified than formerly. In addition to the three religious societies active in 1833 (Congregational, Unitarian, and Episcopal), new congregations were established by Baptists (1844), Roman Catholics (two parishes: 1849 and 1873), and Methodists (1868).

Although the population of Cambridge had grown enormously, it had not completely filled the city's boundaries. There remained some empty land, and the three centers of population of the 1830's were still visually distinct. Nevertheless, the built-up districts were in the process of stretching out along the principal thoroughfares toward one another and before many years would run together. This topographical development was based upon the early 19th-century highways which cut across the fields to converge on the first two bridgeheads; to these were added more roads as later bridges were built. Almost as soon as horsecar lines were laid upon these main roads in 1856, rows of houses began to be built along them. Secondary streets were then cut through at right angles, but on these, early building tended to be confined to lots close to the horsecar lines, while more remote sites remained vacant. Consequently, stretches of empty land were left between the main arteries while low or swampy land was skipped entirely. Since the early highways had not been laid parallel, the street pattern as a whole was irregular; each street system spread out from its own spine until it impinged on some natural obstacle or on another street system. Intercommunication between systems was often roundabout–and still is.

Thus in 1873 Old Cambridge still formed a geographical entity with recognizable limits where built-up neighborhoods tapered off to fields or marshland. The western edge of town, out Brattle Street, was the most clearly defined. Here little building occurred west of Fayerweather Street or north of the ridge on Reservoir Hill (so called because of the water reservoir that stood there between 1855 and 1901). The northwestern outpost was a cluster of small houses around St. Peter's Church on Observatory Hill (Fig. 77), while a series of widely spaced mansions on North (Massachusetts) Avenue stretched as far as Porter Square. A northeastern limit to building was created by a low, damp region in the neighborhood of Oxford and Jarvis Streets and by the Norton estate on Shady Hill. Similar low terrain east of Irving on Cambridge Street discouraged building. The fine residences on Dana Hill and along Main (Massachusetts Avenue) have been described in *Report Two: Mid Cambridge*. Riverside, the riverfront south of Mt. Auburn Street, was growing up as a less favored district, an indiscriminate mixture of small dwellings, warehouses, and wharfs (Figs. 392-393).

More than ever Harvard Square and the Common were the heart of the community. By 1873 the Common had been made a park, a Soldiers' Monument erected at the center, while increasing numbers of buildings on the periphery established more distinct visual boundaries than had previously existed. But the most striking addition to the Cambridge skyline at this date was Memorial Hall with its 190-foot tower. Planned between 1866 and 1870, though not completed until 1877, this building demonstrated that the leading circles of Cambridge were cognizant of current artistic trends abroad. It is also clear that by 1873 the college had begun to turn away from the Common and Harvard Square and to create a center of its own in Harvard Yard, a concept first envisioned by Bulfinch. At the same time, with the construction of Peabody Museum, Memorial Hall, and Lawrence Scientific School, Harvard buildings also were spilling across Cambridge and Kirkland Streets into what would become the North Yard.

Around Harvard Square new buildings were spreading east on Massachusetts Avenue (at that time known as Harvard Street). These had a scale and architectural pretension quite new to the square, and the stores were of a dimension and elaboration heretofore unknown in Cambridge. Meanwhile some activity was evident in Brattle Square, with the construction of a three-story hotel (1849) and by 1875 of two four-story buildings, one of which provided company offices for the horsecar line. Slightly later (1889), Brattle Hall was erected for the Cambridge Social Union. Somewhat similar to a YMCA as a kind of community social center where lectures, study groups, and dramatic performances were held and where space could be rented for private parties, Brattle Hall was not a club; the funds ($17,000 for its erection and the purchase of the old Brattle mansion) were raised through subscription by public-spirited citizens. By 1894 Old Cambridge possessed two clubs, which maintained quarters in old private

houses. One was the Colonial Club, founded in 1892, whose clubhouse was at 20 Quincy Street, the old home of Henry James, Sr. and the present site of the Harvard Faculty Club. The second, the Peabody Club, had quarters at 126 Mt. Auburn Street, the old William Whitney mansion.

1930: The Limit of Growth

By 1930 Cambridge gave the impression of being completely built up. Almost all building sites had been occupied, although small amounts of woodland existed around Shady Hill and along the river below Gerry's Landing, and a few vacant lots remained in new residential districts like Coolidge Hill.

But elsewhere in Cambridge the occasional empty lot would be the lawn of some large 19th-century house whose owner had not yet been impelled by taxation to cut up his property. Exceptions to this generalization were the public park and golf course surrounding Fresh Pond and the marshy section of Northwest Cambridge. In the latter a scattering of filling stations and roadside restaurants had sprung up along the highways traversing the area, but the dominant feature was the city dump, for which the pits of old brickyards provided space.

Particularly important in changing the topography of the city had been the filling operations along the river. Begun in the 1880's on a piecemeal basis but carried through rapidly after the construction of the Charles River tidal dam (1901-10), the new riverfront provided space at its eastern end for a number of large factories and apartments as well as for the principal MIT building which in 1930 still housed most of the institution's activities. Further upriver, near Boston University Bridge, there were several factories and the monumental Cambridge Electric Light Company power plant at Western Avenue. A beautiful stretch was created along the Old Cambridge bank when Harvard dormitories began to be built from 1913 onwards and luxury apartments constructed. Despite a smaller power station on the site of Eliot House and the unsightly yards for the storage of trolleys and subway cars, that section of the riverbank, with its venerable "sycamores" (really London plane trees), had by 1930 acquired the air of an established neighborhood.

In 1930 the population of Cambridge had risen to 113,643, while vast factory and warehouse complexes in the eastern wards sustained the city's claim to second place in the New England industrial output. The sixty years between 1873-1930 had witnessed more changes in the city than had taken place during the previous two and one-half centuries. To this period Cambridge owes impressive public buildings that enhance the city's image: city hall, public library, and large high and trade schools—none of them, significantly enough, situated in Old Cambridge. In East Cambridge, the Middlesex County buildings now filled three full blocks. An active business district of considerable size had come into being in Central Square, and on a smaller scale Porter Square showed similar development.

The changing nature of the city in the late 19th century was also indicated by the appearance of four-, five-, and six-story apartment houses along the principal streets. These had already begun to play havoc with the domestic scale of certain residential areas where space to build could only be obtained by demolishing Victorian mansions set in ample lots. Such large private houses as did not succumb to the apartment-builder eventually gave way to rows of undistinguished one-story shops or, later, to used-car lots. Fortunately most of the early apartment houses built in Old Cambridge before 1917 were of a fairly high quality. The preferred site for them was along a trolley line, and the first infiltration occurred in the two sections of Massachusetts Avenue near Harvard Square (Fig. 10). The only major thoroughfare whose residential character was not compromised was Brattle Street, because its residents had successfully opposed the construction of a trolley line in 1894.

A great deal of change had resulted from the replacement of the horsecar by the electric trolley, which served to bind Cambridge still closer to the sprawling metropolis, so that it became almost indistinguishable in visual terms as an independent community. As mentioned earlier the trolley line from Boston to Harvard Square along the old omnibus and horsecar route (Main Street-Massachusetts Avenue-Harvard Street) was established in 1889. To accommodate increased traffic, a section of Harvard Street (originally called Braintree) had to be widened in 1893, at which time the trees were cut down and the name of that section of the street changed to Massachusetts Avenue. (Another trolley line to Boston followed Cambridge Street through East Cambridge.) With the completion of the subway in 1912, Harvard Square became a node in the metropolitan transportation system of trolleys radiating to neighboring suburbs and bringing many more people through Harvard Square.

Commercial growth in the area was, however, mainly brought about by large numbers of new apartment-dwellers and by significant increases in the Harvard student body, faculty, and personnel. By 1930 the automobile was having some effect as suburban shoppers—principally from Belmont and Arlington—were drawn to Harvard Square. Perhaps this was the beginning of the reversal of a long-established trend of suburb-dwellers, including Old Cambridge residents, to do "serious shopping" in Boston. Certainly the earlier institution of the trolley and especially of the subway had put the retail shops of Harvard Square at a disadvantage by making Boston department stores so accessible. By the 1930's it was beginning to be difficult to park automobiles in Boston, although this was not yet a problem in Cambridge. It would be another generation, however, before specialty shops in Harvard Square were competing successfully with Boston merchants.

Thus a number of factors caused the area to grow until retail shops had spread from Massachusetts Avenue onto adjacent streets and into Brattle Square. This retail district in the thirties was perhaps one-half as extensive as it is today and considerably less intensively developed. The assortment and quality of retail shops was also very different; there were twenty-two restaurants, most of them inexpensive, some large like the "Georgian," of which there were two branches. For "gourmet" cooking one had to go outside the square to tea-room type establishments housed in basements of nearby apartment houses. The most numerous group of retail stores was devoted to men's clothing and catered to

students. The sole "art" store was a genteel picture-framing shop which also carried gifts; the first exotic shop did not appear until 1939 when refugees from Nazi-dominated Austria opened a tiny cooperative shop in a second floor "window" on Church Street. Beyond that there were seven bookshops, along with the usual assortment of hardware, grocery, dress, apothecary, and barber shops and several banks. The Harvard Coop was less than one-fifth its present size; the new University (now Harvard Square) Theatre was a routine second-run movie house, a theatrical event being occasionally scheduled in Brattle Hall.

Despite growth, awareness of an Old Cambridge elite had not yet been overwhelmed by sheer numbers, and characteristic types—Cambridge ladies, venerable professors, Harvard men—still gave an air to the square. There was generally a place to park one's car, and shopkeepers knew their customers. Another interesting difference was the much more restricted "sense of Old Cambridge" than exists today. As in the early centuries, the Old Cambridge community included areas adjacent to Harvard Square and Harvard College—an implication that has been inadvertently obscured in this series of reports because of the line drawn between Mid-Cambridge and Old Cambridge when the survey was planned. What was meant by Old Cambridge in previous centuries was perfectly obvious as long as the different centers of the city were separated by open land, yet even after these centers ran together, the identity of Old Cambridge sociologically remained clear. In 1930 Old Cambridge was understood to reach as far east as Prescott Street, as far northwest as Follen, and included lower Oxford and Kirkland Streets as well as the Shady Hill neighborhood; to the west it continued along Brattle Street as far west as the Mt. Auburn intersection, although this last area was hedged in between a nondescript commuters' neighborhood on the north and a workers' area known as the Marshes that stretched along much of the riverbank. Old Cambridge also extended as far north as Buckingham and Garden Streets, but Avon Hill and the Lower Common belonged to another world. The former had a social order of its own, while the Lower Common was bound to (North) Massachusetts Avenue and had more in common with Sacramento and Garfield than with Brattle Street.

1973: New Pressures and Changes

Well before this date the building space of Cambridge was fully occupied so that no further construction could take place until an existing building had been demolished. While this condition did not deter new undertakings, it ensured that most new buildings were designed on a larger scale than what was replaced. Harvard and Kendall Squares in particular have been the scene of much clearing and rebuilding (Fig. 11), a circumstance that underscores the fact that much of the new construction has centered around and to a degree been generated by the city's two major centers of learning. The architectural results of MIT's widespread building are impressive and have been dealt with in *Report Three: Cambridgeport*, while Harvard's architecture will be discussed in Part Six of this report.

Other regions of Cambridge have also had significant additions. The riverfront from Charles Dam to the Watertown line is skirted by a boulevard and animated with arresting new apartment towers and several shopping centers, while three very tall apartment houses and a shopping center have appeared on the site of the early brickyards in North Cambridge. Central Square, after fifty years of building inactivity, has acquired two new office towers, and East Cambridge has a new courthouse.

The population trend of Cambridge over the last forty years has fluctuated: 1930–113,643; 1940–110,879; 1950–120,740; 1960–98,942; 1970–100,361. The sharp decline reported in 1960 undoubtedly reflects extensive slum clearance, such as that carried out in 1957 at what is now Technology Square. Yet as outmoded ones are demolished, new living units are also being put up: the slight population increase between 1960-70 reflects such rebuilding. If, however, students are considered residents and allowed to vote where they study, what will be the population—and political and tax situation—of Old Cambridge by 1975?

The area included in this Old Cambridge survey happens to correspond fairly closely to four of the census tracts used in the 1970 census (tracts 3540, 41, 42, 45); the population of these is 14,929, a decline of 2100 persons from 1960. Besides declining while the city slowly increases, the population of Old Cambridge shows other differences: a higher proportion of households (67.3%) consists of but one or two persons as opposed to 65% for the city as a whole; 16.4% of the residents are over 65 compared to 11.6% for the city. A high proportion of the population is also represented by graduate students or young professionals, though their percentage is hard to distinguish. A population of this type differs substantially from that of the large families living here in earlier times, and it requires a different type of housing, since such people usually live in smaller apartments. But at the same time as demand for apartments in Old Cambridge has been rising, substantial numbers of units have been removed from the housing market to provide space for commercial, office, and educational uses. This has been especially true near Harvard Square and along Massachusetts Avenue, and the decline in population reflects the extent to which demolition or conversion of dwelling units has outdistanced new building.

The acute shortage of living units is being met by the creation of new small apartments through the subdivision of existing housing as well as by new construction. But space for the latter can only be obtained by the demolition of existing residences, and this trend has so increased in the last ten years that it threatens the environmental quality of the city, as can be sadly seen on Dana Hill. Not only have people been drawn to Old Cambridge by accessibility and the intellectual ambience, but by the harmonious physical environment as well. The gradual subversion of Old Cambridge into another Flatbush (Brooklyn) would sacrifice one of the community's principal values.

Despite the slight loss in residential population, incalculably more people are using the streets of Old Cambridge and especially Harvard Square than ever before. Broadly speaking, the people one finds here might be classified as permanent residents, temporary residents, commuters who work in the area, and people who live outside Cambridge but are drawn hither by the cosmopolitan nature of Harvard Square. It is hard to be precise about the size of some of these

11. MAP OF HARVARD SQUARE IN 1973 SHOWING BUILDING CONSTRUCTION DATES

groups, but the Harvard-Radcliffe enrollment was 14,292 in 1970 (representing both temporary residents and the comparatively few commuters but excluding those enrolled in faculties located in Boston), and there were perhaps 1425 students enrolled at other colleges, seminaries, and professional schools near Harvard Square. The University with a payroll of some 10,000 (faculty, office, and maintenance staffs) employs two-thirds as many people as it instructs, but Harvard by no means dominates the community in the way it did in 1930 and earlier. The number of non-Cambridge people who come to the area to work, shop, or have a good time is impossible to determine, but 22,000 passengers arrived at the Harvard Square MBTA station in the course of a typical spring day in 1971. Besides being more numerous, the character of the people one observes has changed; the traditional "Cambridge types" are now so rare as to be conspicuous, while the proportion of the "under thirty" group has increased noticeably. A large and interesting group of foreign-born are also present. All in all the people one encounters here today could fit into almost any cosmopolitan center in the modern United States, a mobile group in which distinctions of wealth and religion and even race are relatively unimportant. What stand out now are differences in age and life style.

The physical transformation of Harvard Square between 1930 and 1973 has been drastic and is all the more significant in light of the disintegration of so many old commercial districts in American cities. In sharp contrast to the sad but familiar urban picture of vacant stores and demolition, the retail component of Harvard Square has probably doubled in area, reaching along almost all the main streets that converge on the square. It must be acknowledged that such growth at the expense of the metropolitan core has been shared by suburban centers elsewhere and that Harvard Square now encounters competition from shopping centers with parking lots which have sprung up along the Charles River and in less urbanized parts of Greater Boston.

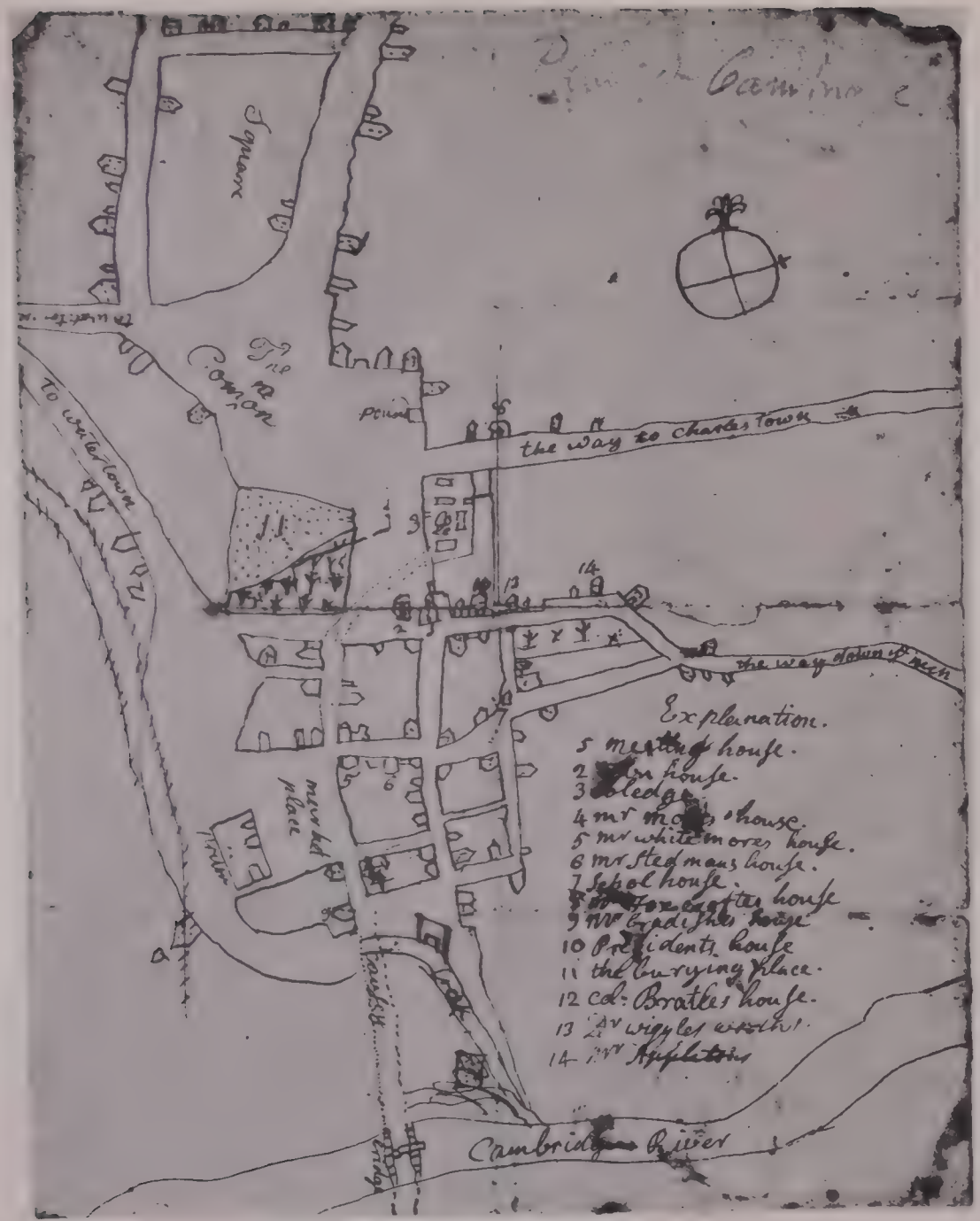
As demand for specialty shops, professional offices, etc. has increased in Harvard Square, nearby houses and apartments have been converted or rebuilt, and even factories, garages, and a theatre remodeled for such purposes. Land use is intensive, and many fashionable shops and restaurants are housed in basements, a somewhat rare phenomenon in this country. As opposed to the commonplace level of shops in this area in 1930, an unusual proportion of the current establishments cater to luxurious and sophisticated tastes, and the number of art, household-furnishing, and high-fashion clothing shops far exceeds that required for a community of 100,000 people. Equally indicative of the community's ability to draw people from a wide geographical source is the establishment since World War II of three new churches: Lutheran, Latter Day Saints, and Armenian Orthodox (the Society of Friends came in 1936)—this at a time when the resident population was actually declining. Certain groups of professional people have also gravitated here: the director and six curators of the Museum of Fine Arts live in Old Cambridge, and almost one-sixth of the architectural offices of Greater Boston are located near the square. A large group of physicians is expected after the new Mt. Auburn Hospital office building is completed in 1973.

The square has always received a large number of visitors, whether scholars attracted by the libraries, laboratories, and museums of Harvard University or tourists come to visit historic sites. These groups will probably increase in geometric proportions when the Kennedy Library is erected, thus stimulating further commercial activity in the square.

The quickening pulse of the commercial community is paralleled by an equally remarkable revitalization and expansion of Old Cambridge residential districts, which goes forward even as some old houses are being replaced by apartments. This quickening, which contrasts with the deterioration of comparable communities elsewhere (e.g., several sections of Brookline), has been under way since 1941. Up to that date Brattle Street and vicinity were slowly losing ground as well-to-do householders moved further from Boston. Restrictions on automobile travel during World War II checked the migration, while rapid increases in building costs and problems of commuter traffic after the war persuaded many people of the desirability of remaining in the city; some people who had moved to the suburbs were dissatisfied with the cultural isolation there and returned to the stimulating atmosphere that surrounded Harvard. All this has produced a resurgence of Old Cambridge real estate: old mansions have been updated and some that were too large for single-family occupancy, divided; rooming houses have been reclaimed or made over into apartments; small houses that once served low-income families have been eagerly bought up and improved. Whole districts have been renovated, and streets that had been almost slums, like lower Sparks and Foster, have become fashionable addresses.

An interesting aspect of this trend has been the extension of the concept of Old Cambridge. Instead of remaining confined to a narrow strip along Brattle and adjacent streets, the sociological sense of Old Cambridge has gradually stretched to the limits covered by this survey and beyond. If in an earlier decade one thought of Dana Hill, Avon Hill, and the Lower Common as distinct neighborhoods, today common interests have brought them in association with Brattle Street into the orbit of Harvard Square and Harvard University to share the sense of community of Old Cambridge.

11A. AERIAL VIEW OF OLD CAMBRIDGE IN 1966



11B. PLAN OF CAMBRIDGE, C. 1748

This is the earliest known map of Old Cambridge that depicts all streets and buildings. Represented here is the town in the last years of the Puritan era in a manner which reflects the sparse directness of the culture itself. Hand drawn, the plan was done by a person familiar with the area but with limited cartographic skill, correcting himself as to the exact placement of roads, inflating the scale at the center while compacting the scale at the edges. Clearly shown is the relationship established in the 1630's between the compact grid of the town with its central "market place" (Winthrop Square) set along the "creek" and connected by the "causey" (causeway, now Boylston Street) and the "bridge" over the "Cambridge (Charles) River." Immediately north of town is the vague open space containing the "1-Meeting house" and "2-town house" in what was later to become Harvard Square. The peripheral location of "11-the burying place" and "3-coledge" is readily apparent. The present Common is shown as an ill-defined junction of regional highways "the way to Charles town" (Kirkland Street) and "to Watertown" (Mason Street); the plan labels as "Square" the former portion of the Common which once extended to Linnaean Street drawn at the upper edge of the map. Houses are symbolized in typical early 18th-century cartographic form along with their smaller outbuildings. Most obvious of those that still stand are "10-Presidents house" (Wadsworth House) and "12-Col. Bratles house" on the Watertown road (Brattle Street).

PART TWO:
DEVELOPMENT OF HARVARD SQUARE

In summarizing a process stretching over three centuries by which Harvard Square assumed the form it has today, one discovers how decisively yet gradually changes have occurred in usage, in patterns of movement, in shape and topography, as well as in the scale and character of buildings. This change is all the more evident because what we now call Harvard Square began as nothing more than a wide place in the road between the Cow Common and the compact center of Newtowne, the "Towne." We shall trace first the formation of the early town and of Harvard Square itself, then that of contiguous commercial and dormitory areas.

The "Towne"

Newtowne seems to have differed from other communities founded by the Massachusetts Bay Company not only in its original fortified character but in the more regular appearance of its center, which may probably be regarded as a reflection of Newtowne's early status as the "capital" (Fig. 12). The town was composed of a system of "streets" which were "laid out in squares" on a somewhat irregular grid. This street grid was placed across the gentle hill rising above the tidal marsh, a topographic feature still evident today. Four streets ran parallel to the river and three were at right angles to it, approximating the cardinal points of the compass, and a market place (Winthrop Square) was soon established on the crown of the hill. The grid of the town was bounded on the north by the open space of the future Harvard Square, on the west and south by the Creek which ran along the base of the hill, and soon by Creek and Marsh Lanes (Eliot and South Streets), and on the east by two other lanes (Bow and Arrow Streets) which led to the planting fields and oyster banks.

The town grid contained sixty-four house lots ranging from 1/8 to 3/4 of an acre: even the smallest lot was large enough to comprise a house and small barn. A sense of compactness, order, and safety was ensured by the decree in January 1633 that "no houses be permitted beyond the pallisade" and that "by joint consent the town shall not be enlarged until all vacant places be filled with houses." Another order of 1633 required that "all houses shall range even and stand just six feet from the street" and "all houses within the bounds of the town shall be covered with slate or board, not with thatch." This decree put into legal force an intention expressed earlier by Governor Dudley, in a letter of 1631. The impression of a tight little town is conveyed by William Wood in his *New England's Prospect* (1633): "This is one of the neatest and best compacted towns in New England, having many fair structures with many handsome contrived streets." Lucius R. Paige (*History of Cambridge . . .*, 1877) points out that in 1636 Newtowne was assessed for the largest single amount in a general colony tax.

12. THE TOWNE IN 1670

1. MARKET PLACE, 1635
2. SITE OF FIRST MEETINGHOUSE, 1632
3. TOWN WHARF AND FERRY LANDING, 1635
4. WATCH HOUSE HILL; SITE OF LATER MEETINGHOUSES
5. BURYING GROUND
6. HARVARD COLLEGE
7. SITE OF PROPOSED FORT
8. BROOK FROM COLLEGE YARD TO CREEK LANE
9. FIRST SCHOOLHOUSE
10. FIRST JAIL
11. SECOND JAIL, 1681
12. PARSONAGE, 1670
13. BARRIT'S POND
14. TOWN SPRING

During early decades Dunster (then Water) Street was the principal "high street." The first meetinghouse stood at its junction with Mt. Auburn, on the southwest corner, and the foot of Dunster was the landing for the ferry instituted in 1635 which made this street the highroad to Boston. Also on this street stood the first tavern as well as thirteen of the town's fifty-seven houses, and here lived ten tradesmen.

The focal point, in so far as there was one, was the marketplace, now Winthrop Square. By 1635 Cambridge was one of the four, among fifteen Massachusetts towns, designated as a market town, an honor in keeping with its importance as the capital. When Sir Richard Saltonstall decided to return to England in 1631, he forfeited the half-acre assigned him, and this was set aside as the market square. Fronting it was Governor Haynes's house, the only one listed in the 1635 register as having a courtyard. Although a market house was never constructed here, the square seems to have been a busy place so long as the General Court gathered in the Newtowne meetinghouse. Later, as commercial activities of the colony became concentrated in Boston, the Cambridge market was gradually transferred there. Yet town records refer to the market as late as 1699, and in 1750 the square was still known by that name. In 1812, when Cambridge eventually recognized the need for a market house, the location chosen was not the old square, by then a quiet residential district, but Harvard Square.

Midway between the tight cluster of houses in the village and the Common lay an amorphous space that would someday be called Harvard Square. It was mainly a connecting link through which persons had to pass to get from the village to the "highway" leading to Watertown or Charlestown. On slightly higher ground than the village, the area was at first called Watch House Hill because of the short-lived fortification there. But two events soon after 1650 had important implications for this area: one was the relocation of the meetinghouse on the former site of the watchhouse; the other was the construction in 1660-62 of a bridge over the Charles River at the foot of Boylston (then Wood) Street. Since this bridge was the only river-crossing for many miles, it meant that persons moving north-south were funneled through Boylston Street and Harvard Square. At first, Boylston Street rather than the square benefited from the bridge, and that street soon superseded Dunster as the prime business location.

The shape of the future Harvard Square was irregular and its boundaries ill defined. On the west side was the Burying Ground (originally called the Burying Place), fenced in 1636, and one house and a large vacant lot—at present the sites of the Unitarian church, a movie theatre, bank, and the Coop. To the east and south were the college and meetinghouse, while along Braintree Street (Massachusetts Avenue) stood four houses of tradesmen, one of them in 1656 containing the "beer and bread shop" catering to Harvard students. The ground was ungraded; there was a low mound rising between the cemetery and the college, and a small brook meandered from the college yard to the town creek beyond Creek Lane (Eliot Street). Improvements came slowly: a bridge was thrown over the brooklet, a causeway constructed to the meetinghouse, and the area gained in dignity when the second Harvard Hall was finished in 1677.

For many years a curious ambivalence existed as to the visual relationship between college and square. The first group of college buildings was entirely isolated from the square (see Part Six), but in 1671 Harvard Hall II was situated adjacent to it although standing somewhat aloof, since the main elevation was at right angles to the square. A president's house, which existed on the site of Massachusetts Hall between 1680 and 1718, also turned a lateral elevation. Even the principal building in the square, the meetinghouse of 1650, turned its back and faced south toward the village.

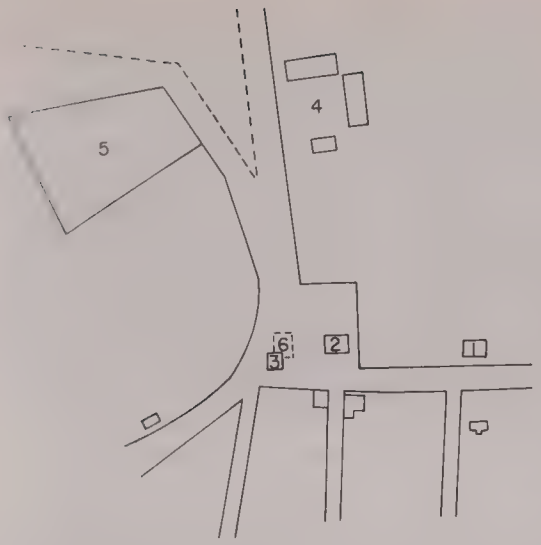
The Formation of Harvard Square

The early 18th century brought new buildings and increased usage to the area. A new meetinghouse was erected (1706; Fig. 298) on the site of the second one of 1650 but, like its predecessor, this also fronted Braintree Street. A courthouse, probably the third in order of construction, was erected here in 1708. Standing free in the square just southwest of the present subway kiosk, this building probably faced east toward the meetinghouse, because its long sides were on the east and west (Fig. 13) so that it turned its back to traffic along Boylston Street and its flank to the square. For a long time Harvard Square as such was ignored by architects.

The placement of these two important buildings restricted the width of Braintree Street and separated it from Harvard Square to which it was connected by gaps between the buildings. This gave the square a shape that was indeed more or less square, not at all the triangular outline of today. But even as late as the third quarter of the century, there was less activity around the square than along Boylston or Braintree Streets. On the former as late as 1770 stood seven shops, one office, one tavern, and two tradesmen's houses, while Braintree contained five or six houses and several shops as well as Wadsworth House—perhaps the finest house yet constructed in town—built in 1726 for the president of the college (Fig. 103).

Harvard College, in the meantime, had erected Old Stoughton College (1699) and replaced the (third) president's house with Massachusetts Hall (1718). These buildings, along with Harvard Hall II, formed three sides of a quadrangle just inside what is today Johnston Gate. While these buildings undoubtedly contributed to the square by their proximity, they retained a high degree of independence, clustering together behind a low fence as the Burgis view of 1726 indicates (Fig. 330). Nevertheless, the college buildings may have had one deliberate visual tie with the Common, for it seems likely that a row of elm trees along that area's southern side pointed in the direction of Stoughton College. These trees, of which the Washington Elm was one, were reportedly planted about 1700.

A tide of buildings about 1750 almost encircled the square with public and private buildings and helped define its open space (Fig. 14). On the south side rose still another meetinghouse, the fourth occupied by the Congregationalists, on the approximate site of Lehman Hall (Fig. 299). Built in 1756, the structure stood well back from Braintree Street, with its facade almost in line with the rear wall of Wadsworth House. The setback resulted from the new building's being placed several feet behind the third meetinghouse of 1706, which re-

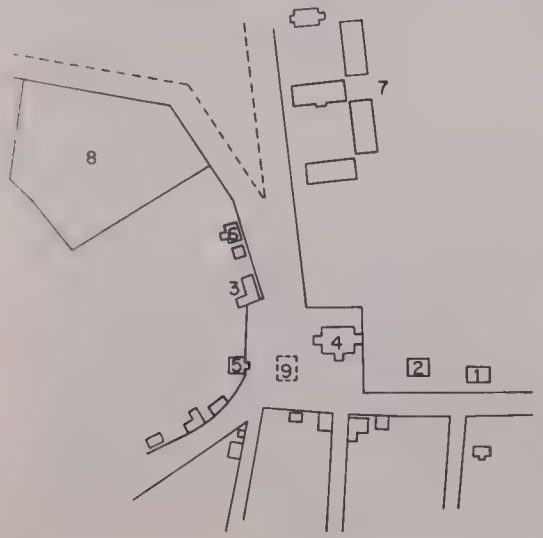


1. WIGGLESWORTH HOUSE, 17TH C.
2. THIRD MEETINGHOUSE, 1706
3. COURTHOUSE, 1708
4. HARVARD COLLEGE
5. BURYING GROUND
6. PRESENT SUBWAY KIOSK

13. HARVARD SQUARE IN 1710

mained in use while its successor was under construction. As the new house of worship faced south about on axis with Dunster Street, it was again oriented toward the gridiron of the village. However, a side elevation with a projecting stair-tower crowned by a belfry opened toward the square. On Braintree Street a house and shop of the 17th century were still standing near the present site of the Cambridge Savings Bank, the corner lot on Boylston Street was then vacant.

14. HARVARD SQUARE IN 1770



1. WIGGLESWORTH HOUSE, 17TH C.
2. WADSWORTH HOUSE, 1726
3. WEBBER HOUSE, 1750
4. FOURTH MEETINGHOUSE, 1756
5. COURTHOUSE, 1758
6. WISWALL'S DEN, 1769
7. HARVARD COLLEGE
8. BURYING GROUND
9. PRESENT SUBWAY KIOSK

15. (FOURTH) COURTHOUSE, 1758, AND WEBBER HOUSE, 1750. BOYD DRAWING OF 1796. BOTH DEMOLISHED (1930, 1844)

Along the east side rose three new college buildings: Holden Chapel (1742), Hollis Hall (1762), and Harvard Hall III (1764). By placing the first two northeast of Harvard Hall, a second quadrangle was created next to the first, which along with it formed quite an impressive group fronting the square and Common (see Part Six). On this side, however, a gap still remained between Massachusetts Hall and the meetinghouse. The west side of the square was also receiving improvements. A (fourth) courthouse (Fig. 315) of some architectural pretension was erected in 1758 where the Harvard Coop now stands, while north of it two dwellings were added: a two-story, gambrel-roofed house of wood (1750), sometimes referred to as the Webber house, and a three-story brick-ended structure built in 1769 (Figs. 15-16). Intended as a private house but soon acquired by the college as a dormitory, the latter is known both as College House I and as Wiswall's Den.

16. COLLEGE HOUSE I (WISWALL'S DEN), 1769. GREENE DRAWING OF 1801. DEMOLISHED 1845

The layout of the square was still indeterminate and would pass through many changes before assuming the shape we know today. Its northern end, where it merged with the Common, formed a bottleneck 80 feet wide (as opposed to the 150 feet of today), and just south of that the buildings were badly out of line, with a back corner of the Webber house projecting beyond the front of the courthouse, an awkward disposition which still persisted in 1833 (Fig. 6) but one that emphasized the square shape of the area. The demolition of the courthouse of 1708 in the middle of Braintree Street and the relocation of the fourth meetinghouse back of the third eliminated for the time being the visual separation of Braintree Street and the square and enlarged the public space. But things would not long remain this way. In 1812 the town, needing a market house, erected one almost on the site of the third courthouse, again restricting the entrance into Braintree Street even though that road had now become an important thoroughfare leading to the new West Boston Bridge.

Another burst of building activity in the early 1800's is chronicled by Alexander Wadsworth's map of 1833 (Fig. 6). From this it is clear that Harvard Square was now the focus of Old Cambridge, for the court- and meetinghouses had been joined by two new college buildings, Graduates Hall and Dane Hall, and within the year a Gothic church for the Unitarians would rise on the northwest (Fig. 302). One other public building (not shown on Wadsworth's map) is the market house of 1812; this had just been demolished before the map was drawn.

Of slightly later date but of some architectural interest was the Lyceum of 1841 on the site occupied earlier by the fourth courthouse (Figs. 17-18). On a high basement that contained shops and necessitated an imposing flight of steps to the main level, this edifice announced its cultural role as a hall for lectures and concerts by an impressive Doric portico. Complementing the smaller Ionic temple front of Dane Hall opposite, the Lyceum added dignity and status to the square in visual terms.

17. LYCEUM HALL, 1841. PHOTO OF 1868. DEMOLISHED BY 1924

18. HARVARD SQUARE IN C. 1870 SHOWING LYCEUM HALL AT FAR RIGHT

19. SOUTH SIDE OF HARVARD SQUARE IN 1885. FROM LEFT: BRICK STORE, BEFORE 1826, WILLARD HOTEL, 1797, STORE AND RESIDENCE, 1783, ALL DEMOLISHED; FARWELL'S GENERAL STORE, BEFORE 1800

In addition to public buildings, the town's principal shops were now to be found here, all larger in scale than the houses that preceded them. On the southern border of the square between Dunster and Boylston one will see that the 17th-century house and small shop had been replaced by four commercial structures (Fig. 19). On the Dunster corner (now the site of the Cambridge Savings Bank) stood a brick store dating before 1826 and the Willard Hotel (1797), built of wood and three stories high. West of them was another simple late Georgian building of wood comprising a dry-goods store with residence above (1783), then an alley leading to a livery stable in the center of the block, and finally Farwell's general store, a broad-gabled, wooden structure of two

20. HARVARD SQUARE AFTER 1876
SHOWING FARWELL'S GENERAL STORE AT CENTER

stories erected just before 1800 (Fig. 20). Though drastically remodeled and heightened in 1896, the last two buildings remain to the present day. Around the corner at 12-14 Boylston Street is a three-story brick building of 1820 whose appearance still recalls the early period despite remodeled shopfronts.

The newest and largest commercial structure of three stories was built in 1832 next door to the courthouse. Owned by the college, this was a dormitory, but it contained space for stores on the ground floor, one of which served as a terminus for the omnibus line (Fig. 21). At first called Graduates Hall (because it housed law students) and later College House, this dormitory was extended in 1845 and 1859 (at the expense of both the Webber house and Wiswall's Den) until it stretched for 260 feet to Church Street. A further enlargement of 1870 added a mansard story as well as a fourth-story central pavilion (Fig. 22). Like most of the other new buildings going up on the square, it was constructed of brick, with walls carried up on the property lines without allowing for front or side yards, and was thus markedly different from the wooden dwellings of the 17th and early 18th centuries that had heretofore served as shops. When most of the property fronting Harvard Square was occupied by buildings of this kind, except for the stretch of college land on the east, a definite sense of spatial enclosure was created.

College House was of considerable real-estate significance because it pioneered a type of building that would dominate Harvard Square for the next three-quarters of a century, the private dormitory. Of the eighteen such buildings eventually erected, only two were sponsored by the college, College House of 1832 and Holyoke House of 1870, the rest being built by private investors. Between 1850 and 1900 this type of building would transform the architectural character of the square by the dwarfing effect of its large scale. The first private undertaking of this sort was Little's Block or the Harvard Building, built in 1854 on the site of the present Forbes Plaza (Figs. 23-24). Heralded in contemporary newspaper accounts and recorded in a vignette in Walling's map of 1854 as a highlight of Cambridge architecture, this undertaking was popular with students, and its apparent success (though the building was never pushed to the complete form shown in the lithograph) seems to have encouraged a wave of dormitory construction (Fig. 25).

21. COLLEGE HOUSE, MASSACHUSETTS AVE., IN 1867.
LEFT SECTION, 1832, DEMOLISHED 1916, 1956. RIGHT SECTION, 1845, 1859

22. COLLEGE HOUSE IN 1878. MANSARD STORY
AND FOURTH STORY CENTER PAVILION ADDED IN 1870

23. HARVARD BLOCK, MASSACHUSETTS AVE.
VIGNETTE FROM 1854 WALLING MAP
SHOWING BUILDING AS PLANNED

24. HARVARD BLOCK, 1854. PHOTO PUBLISHED 1867
SHOWING BUILDING AS CONSTRUCTED.
DEMOLISHED 1961

25. SOUTH SIDE OF HARVARD SQUARE IN MID 1870's
SHOWING HARVARD BLOCK AT RIGHT
WITH LATER BUILDINGS AT LEFT

26. 1300-1306
MASSACHUSETTS AVE., 1869.
BEFORE 1883–1900 ADDITIONS
AND ALTERATIONS.
PHOTO PUBLISHED 1885

27. 1300–1316
MASSACHUSETTS AVE., 1869–85.
ALTERATIONS, 1900.
PHOTO OF 1902–04

Two later dormitories were so much larger and more pretentious architecturally that they may be said to have inaugurated a new era in the architectural history of the square. Three and four stories tall and with high mansard roofs, they inaugurate what might be called the first rebuilding of Harvard Square. These were architecturally advanced for Cambridge commercial buildings and conformed to the new French style of architecture current in Boston for more than a decade (Fig. 26). One building at the corner of Linden Street was erected by a merchant named Dolton in 1869 but was drastically modified in 1900 when heightened two stories and combined with adjacent buildings on Massachusetts Avenue of 1883 and 1885 to form a still larger dormitory called the Fairfax (Fig. 27); in 1920 the group was redivided as apartments. The delightful *Art Nouveau* storefront at 1304 Massachusetts Avenue was installed in 1907 (Fig. 28).

Neighboring Holyoke House, built in 1870 upon the site of the present Cambridge Trust Company, was even taller and more elaborate (Fig. 29). Heated by steam and with toilets in every suite, quarters in this building were understandably more in demand than rooms in the Yard, where as late as 1908 some dormitories had basement toilets and no central heat. Until the introduction of dormitory building on the riverfront in 1913, Holyoke House was the only dormitory put up by the college south of Massachusetts Avenue.

28. ART NOUVEAU STOREFRONT, 1304 MASSACHUSETTS AVENUE, 1907. COOLIDGE & CARLSON

Noteworthy among later dormitories on the avenue is the pair of buildings at 1310-16 (erected 1883-85), which have good Queen Anne brick and terra cotta work (Fig. 27), and the monumental structure at 1246-60, the corner of Plympton Street (1902; Fig. 30). Two earlier dormitories without stores faced Quincy Square, only one of which, the Quincy (1891), survives. Thus soon after 1900 the five-block stretch of Massachusetts Avenue from Quincy to Boylston Streets (save for the Cambridge Savings Bank of 1923) had taken the form it would keep until the completion of Holyoke Center in 1968. The demand for dormitories was caused, as we shall later see, by the rapid growth of Harvard under President Eliot (see Part Six); it was not a response to any demand generated in Boston, because the development was well under way before the arrival of the trolley in 1889.

The exception to this wave of dormitory-building is the four-story Abbot Building (1909) at the triangular intersection of Boylston and Brattle Streets (Fig. 31), whose marble-clad ground floor was first used as a post office. Other buildings of purely commercial character remained singularly simple in these years, as illustrated by the two pre-1800 wooden structures mentioned earlier at the corner of Boylston Street and Massachusetts Avenue. Although an extra story was added to the corner building and the facades of both were changed in 1896, they remain so nondescript and covered with signs that their very existence is ignored.

The office building erected in 1916 for the Harvard Trust Company ushered in a new phase, which would further transform the appearance of Harvard Square. Of red brick trimmed with white limestone, the original building was but one story in height (Fig. 31) though two more were added in 1923. The architecture of the new structure was Georgian Revival, a style soon copied by two other important buildings fronting the square: Cambridge Savings Bank (1923; Newhall and Blevins), and Harvard Cooperative Society (1924; Perry, Shaw and Hepburn) (Fig. 32)—and by a trail of less significant stores and offices along lower Brattle and Boylston Streets. When Harvard University made use of the same idiom for Lehman Hall and for the chain of two- and three-story dormitories bordering Massachusetts Avenue, the architectural character of the square became fairly unified.

This wave of building swept away most traces of the 18th and early 19th centuries and brought to an end this first rebuilding of Harvard Square. The Savings Bank replaced two early 19th-century buildings; the Coop stands at the

29. HOLYOKE HOUSE, CORNER OF MASSACHUSETTS AVE. AND HOLYOKE ST., 1870. DEMOLISHED 1961

30. 1246–60 MASSACHUSETTS AVE., 1902. COOLIDGE & CARLSON

site of the Lyceum and of the fourth courthouse. Space for the 1916 Harvard Trust (and for its recent expansion) was obtained at the expense of College House, while the 1916-23 facade was in turn obliterated when the bank was enlarged in 1956. A motion-picture theatre was erected in 1925 but, except for its marquee, this did not change the appearance of the square because it was built in a courtyard that had once been the Harvard woodyard behind College House.

This completion of the first rebuilding is not the end of the story: Harvard Square appears destined for yet another rebuilding, a new round of construction set in motion by the University when between 1960 and 1967 Holyoke Center replaced Holyoke House and other structures in the block (see Part Six). The bold architectural forms of the Center, its use of massive concrete shapes in place of traditional forms of brick or wood, and the bold manner in which the planning encompasses an entire city block instead of house-size lots—all herald a new approach to architecture.

31. WEST SIDE OF HARVARD SQUARE IN C. 1920. AT LEFT: SUBWAY KIOSK, 1912, DEMOLISHED. CENTER: ABBOT BUILDING, 1909. AT RIGHT: HARVARD TRUST BUILDING, 1916

32. HARVARD SQUARE IN 1949. AT LEFT: HARVARD TRUST COMPANY WITH 1923 CHANGES. CENTER: HARVARD COOPERATIVE SOCIETY, 1924. PERRY, SHAW & HEPBURN

Harvard Square Today

To the expectant visitor, Harvard Square today is a disappointment. Though Harvard Yard is splendid and Holyoke Center likewise, the area as a whole is not what it could or should be. Most persons familiar with the district have learned simply not to see large parts of it. This neutral character results from two main factors: the commonplace quality of many buildings and the plethora of automobiles which clog streets and threaten pedestrians. Until recently most buildings were designed as isolated objects without thought for their relation to the whole, and attempts to deal with traffic by widening streets have made matters worse by eliminating the trees that once shaded sidewalks and camouflaged inferior buildings.

The first thing that strikes the eye is the grimy subway kiosk (a replacement in 1928 of one of 1912; Fig. 31) with its dark entrance and precipitous steps. The adjacent aluminum-trimmed newsstand, which looks like a trailer stranded in the middle of Massachusetts Avenue, is even more of an eyesore. No matter what the architectural improvements on the periphery, the subway island isolated by barren pavement remains an inadequate focal point. In addition to a renovated station, the island needs trees. With the eventual transformation of the metropolitan transit system, the subway entrance ought to be moved to one side of the square and integrated with the surrounding buildings or, even better, removed from the square altogether.

The greatest architectural asset of the square is the line of two- and three-story freshman dormitories (with Lehman Hall) along Massachusetts Avenue built by the college between 1924-30. This felicitious addition provides the yard with a screen against the noise and bustle of cars and enhances the square by providing an appreciable group of buildings whose consistent design and scale act as stabilizing foils to the competing shapes and sizes of others nearby. These Harvard structures, reinforced by the handsome wrought-iron fence, form a clear limit to the open space of the square, while their low height and the trees growing among them do much to relieve the congestion and cramped dimensions of Massachusetts Avenue. Facing the Yard across the avenue are three blocks of tall structures which, although not distinguished individually, by contrast set off the buildings and open spaces of the Yard. The effect of this wall of buildings would be still better if all its members rose to five or six stories.

The exception to the ring of new red brick Harvard buildings is wooden Wadsworth House, painted yellow, which is appropriately not enclosed by the iron fence otherwise surrounding the yard (Fig. 103). This venerable structure recalls a tranquil period in Cambridge when Massachusetts Avenue was a country lane leading to hayfields near Central Square.

The other architectural asset is Holyoke Center which, despite its great size, is well related to its site. A subsidiary pavilion containing the Cambridge Trust Company extends to the sidewalk line and rises to three stories, thus relating the new building to older ones along the avenue and providing a transition to the higher mass of the main building. Forbes Plaza with its shade trees and textured brick pavement provides a retreat from the all-pervading asphalt and vehicular traffic. The spacious promenade that leads through the center of the building to Mt. Auburn Street gives a welcome alternative to crowded outside sidewalks and stores oriented toward them and it establishes a new kind of urban environment in Cambridge. Though the mass of the building is large, its parts are so disposed that ample light and air are ensured for occupants as well as for neighbors. Thus Holyoke Center demonstrates that the development of an entire block when handled with skill can be far more efficient and architecturally attractive than a series of piecemeal "improvements" on individual, isolated lots.

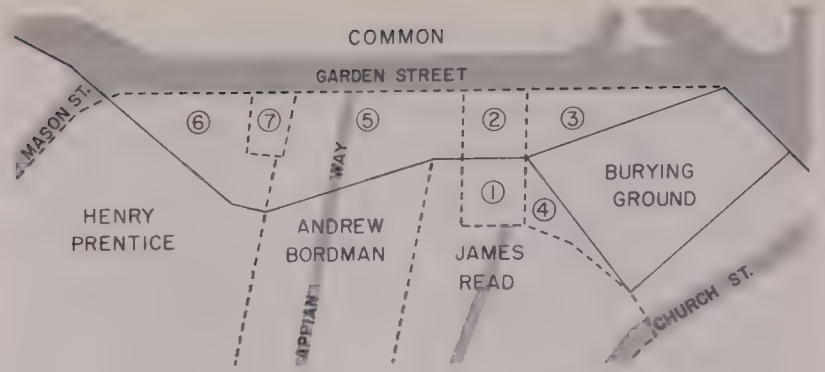
The west side of Harvard Square does well enough, because the buildings have sufficient bulk to wall in the open space and because differences in architectural design are minimized by uniform brick construction (Fig. 32). Indeed the variety of components here spells out the architectural development of the square from 1845 to 1956, i.e., from the second unit of College House to the remodeled Harvard Trust. The best part of the group is the earlier unit of the Harvard Coop

(1924), related to the college building of similar date across the square. It is ironic, however, that the two most conspicuous corners in the whole area, where Brattle and Boylston Streets open into Harvard Square, are so commonplace.

The defiler of the square is, of course, the automobile. If cars could somehow be banished to other streets or to an underpass like that on Cambridge Street, the square would be infinitely more pleasant and handsome. Trees could again be induced to grow along the curbs and pedestrians could move with safety. At such a time, one particular historic site ought to be commemorated, perhaps with a fountain, garden, or sculptural group. That is the site of the fourth meetinghouse, which was used by the legislature of Massachusetts while framing the constitution of the Commonwealth. Another suggestion for any large-scale rebuilding in the area might be the integration of covered sidewalks into the design of new buildings; the marquee in front of the Harvard Trust and Coop shows how serviceable this feature is in the Cambridge climate.

33. BELL VIEW OF 1809 OF CAMBRIDGE COMMON. AT LEFT: WATERHOUSE HOUSE, CARPENTER SHOP, TAVERN, AND STABLE. CENTER: TWO HOUSES AT NORTHEAST CORNER. AT RIGHT: HOUSES AT HOLMES PLACE

34. CAMBRIDGE COMMON IN DRAWING OF C. 1781. FROM LOWER LEFT CLOCKWISE BUILDINGS SHOWN ARE CHRIST CHURCH, SCHOOLHOUSE, BARN ON PRENTICE ESTATE, REVOLUTIONARY BARRACKS, WATERHOUSE HOUSE, CARPENTER SHOP, HOUSES AT NORTHEAST CORNER AND HOLMES PLACE



1. JAMES READ TO CHRIST CHURCH,1760
2. LOCATION OF TOWN POUND: PROPRIETORS TO CHRIST CHURCH, 1760
3. PROPRIETORS TO FIRST PARISH TO ENLARGE BURYING GROUND, 1760
4. LAND ALREADY ENCLOSED IN BURYING GROUND GRANTED BY JAMES READ TO FIRST PARISH, 1767

5, 6 LAND SOLD TO ADJOINING OWNERS, 1767

7. SCHOOLHOUSE LOT, 1769

35. ADJUSTMENT OF BOUNDARIES FOLLOWING PURCHASE OF CHRIST CHURCH LOT IN 1760

The Cambridge Common

As in the case of Harvard Square, the configuration and appearance of the Common are matters of fairly recent date. The function and extent of the Common in the 17th century was discussed earlier, and here attention will be devoted to the process by which the present sense of enclosure and the parklike appearance were achieved. Only with a reduction in size was the area brought down to a scale at which it could be grasped visually as a unit. That happened in 1724 when the north boundary was put back from Linnaean to Waterhouse Street, a decrease of from 86 to 16 acres; eventually one house, a tavern, and a carpenter's shop had sprung up on the new street. Two more houses stood along the northeastern side fairly near the present Epworth Church, and there was an enclave of dwellings at Holmes Place. These buildings on the edge of the Common established visual limits to the open space (Fig. 33). Another decisive boundary on the Garden Street side was provided by the row of splendid elms planted about 1700. This boundary was reinforced by Christ Church, the schoolhouse of 1769, and two farmhouses with accompanying barns. A drawing of c. 1781 shows the prominent buildings, but omits at least four others known to have been standing (Fig. 34).

A curious adjustment of the southern boundary came about in 1760-67, after a group of Cambridge Tories, intent on building Christ Church, bought a 100-foot square lot from James Read. When this parcel proved too small for the purpose, the parishioners purchased from the Proprietors of Common Lands a lot long used by the community as a pound. Since this lot projected into the Common, the Proprietors transferred another strip of land from the Common to the Burying Ground in order to straighten the new boundary (Fig. 35).

36. VIEW OF CAMBRIDGE COMMON FROM MEMORIAL HALL TOWER IN 1875

In this manner the church, a number of private structures, along with the new college buildings, came to enclose a rather treeless green sometimes used for military drill. Though a visitor might remark in 1775 that the Common was "like a bowling green," we must not envision it as it is today. There was no fencing, the terrain was less even, and narrow roads leading to neighboring towns criss-crossed it somewhat as paths traverse it today. During the first half of the 19th century the remaining building sites around the Common were filled in. The Wadsworth map shows twenty buildings surrounding the Common, exclusive of structures in Harvard Yard, seven more than were there in 1781 (Fig. 6); typical of the houses then built is the rectory (1820) of Christ Church (Fig. 149). The fencing of the Common in 1830 left the Washington Elm stranded in the middle of the Garden-Mason Street intersection (Fig. 137), but since the streets were then unpaved, the tree did not seem so isolated as does the desolate bronze plaque (surrounded by a sea of asphalt and rushing cars) marking the position of the historic tree (which was taken down in 1923). By 1875 the path system of the Common had been established, with Soldiers' Monument (1869) as its focal point (Fig. 36).

By 1930 the Common had come to look like a standard city park, though one rich in historical associations and surrounded by a number of historic buildings. The ring of encircling structures defining its limits had been further emphasized about 1890 by Hastings Hall and the Harvard Epworth Methodist Church on Massachusetts Avenue, but it was the enormous amount of building in the 1920's that gave visual clarity to the Common: freshman dormitories flanking Holden Chapel along the east, Radcliffe buildings on the south, the tight cluster of apartments at the western corner near Garden Street and Concord Avenue, more apartments and the Christian Science Church along Waterhouse Street (Fig. 37). In the 1930's this girdle of buildings was completed by the new Hemenway gymnasium and Littauer Center. At the northeast corner of the Common the entrance to the MBTA tunnel further obliterated the so-called Little Common and for the first time established a clear visual division between the Common and Harvard Square.

37. AERIAL VIEW OF CAMBRIDGE COMMON IN 1958

Today there is no question but that the Common must be protected. It is too heavily and variously used to retain the semi-rural, village-green character of former times, but methods are under study to make it a usable public space that will be both sightly and well cared for. Inherent in preservation is concern over any new construction or remodeling that might compete with or overshadow the historic character, yet new buildings properly designed can strengthen visual qualities. Indeed, the new Cambridge Street underpass undoubtedly improves the Common by defining its eastern corner where shape and limits have always been somewhat unclear (that is, where the Common and Little Common came together).

The Common has also achieved a fairly satisfactory relationship between historic and recent buildings. An illustration is Larsen Hall, whose brick walls and shapes are related to the brick buildings of Radcliffe Yard even though mass and style of architecture differ. A building of such size directly on Garden Street would have been a great mistake since it would have competed with the buildings of Christ Church and of Radcliffe. Set well behind these, however, Larsen Hall furnishes a kind of backdrop emphasizing rather than overshadowing them (Fig. 57). Harvard's new office building for the Law School on Massachusetts Avenue and the Undergraduate Science Center are sufficiently far from the Common to leave its scale undisturbed, but the very presence near the Common of such impressive new structures is a positive contribution. An unfortunate break in the chain of structures surrounding the Common is caused by the Commander Hotel parking lot, while an indecisive link is the junction of the Common with the quadrangle in front of Hemenway gymnasium and Austin Hall, the site of Gannett House. This building is too small to dominate its lot and appears unsure as to which direction it should face—but the deficiency is as much a problem for the North Yard as for the Common.

37A. DICKSON TOMBSTONE, BURYING GROUND, 1692.
JOSEPH LAMSON, STONECUTTER

The Burying Ground

Situated between First Parish and Christ Churches and somewhat reminiscent of an English churchyard, the Burying Ground is actually a part of the original 17th-century Common Lands, its boundaries later defined by development of the two church properties. Set aside from the Common for burials before 1635, it superseded the first burial place "without the Common Pales" (see Part Three). Initially it encompassed about one acre only, but additions were made when necessary by simply enclosing more of the Common until the construction of Christ Church in 1760 established both the street line and the western boundary of the cemetery. Other limits were set likewise by the First Parish Church in 1833 and by later developments on Church Street and Farwell Place. The cast-iron fence of 1891 provides a definitive separation from the larger public areas of Harvard Square and the Common, more effective than were the wooden picket fence of 1860 or the earlier stone-and-rail enclosures. Unfortunately the Burying Ground appears always to have suffered neglect and desecration, a condition that can be traced through the years in Town and City records.

One historic value of the Burying Ground is the way in which the monuments illustrate, albeit with grim charm, changing styles in tombstone sculpture from late 17th to early 19th centuries, in much the same way as the buildings discussed in Part Four show architectural changes over the same period. The majority of the monuments consist of slate headstones with scalloped shoulders. The designs begin with death's-heads of medieval origin, slowly adopt winged cherubs under the influence of the Renaissance, and finally turn into graceful Neo-Classic urn-and-willow memorial tablets. From the realistic to the symbolical they thus chronicle attitudes toward death. The late 17th- and early 18th-century gravestones are the most striking, with their inventive epitaphs and detail, the finest of these being the work of Joseph Lamson, a stonecutter of Charlestown. His straightforward naturalism and inventive use of detail is best seen in the stone of William Dickson of 1692, one of six by Lamson in the Burying Ground (Fig. 37A). Interspersed among such traditional headstones are the 18th-century altar tombs denoting the wealth and social standing of their owners. The most lavish of these is the Vassall tomb erected about 1750, with a sandstone table supported by fluted pilasters and bearing only the family coat of arms.

Just inside the fence, near the corner of Garden Street and Massachusetts Avenue, stands the old milestone that had been located originally in Harvard Square. Cut by A(braham) I(reland) in 1734, it indicated the 8 miles to Boston over the Boylston Street bridge through Brighton, Brookline, and Roxbury. In 1794 the opposite side was inscribed with the new mileage to Boston over the West Boston Bridge of 1793, "2½ miles," a saving of almost 6 miles.

The Gold Coast

Belonging to Harvard Square yet visually distinct from it is the Gold Coast, a Harvard dormitory area adjacent to the triangular plaza at the intersection of Bow and Mt. Auburn Streets. No traces of the 17th and 18th centuries survive here, although much of this area was encompassed by the original town site laid out in 1632. Holyoke, Dunster, and Mt. Auburn Streets follow the routes of three original streets (Crooked, Water, and Spring, respectively). Bow Street was the "Highway to the Neck" that led from the 17th-century village to the original Planting Fields on Dana Hill; the low rise on which Lowell House tower stands is the site allocated for the early fort that was never constructed. In this area were the first meetinghouse, school, and tavern, and a pond lay in the middle of the block now occupied by Holyoke Center.

By mid-18th century things had changed. Some house lots had been subdivided to make space for new, modest houses or shops for inhabitants who had turned from farming to trade, and perhaps half of the 17th-century houses had disappeared through fire or decay or to make room for the outbuildings and gardens of the larger houses of a few wealthy citizens. For example, Judge Samuel Danforth, one of the inhabitants of Dunster Street, acquired two adjoining lots in 1738 and 1769 and demolished the houses on them in order to enlarge his garden, while East Apthorp cleared four early house lots in 1759 to form a suitable site for his mansion.

The third decade of the 19th century saw changes when the Shepard Congregational Society—one party to the Unitarian-Trinitarian controversy in Old Cambridge—built a church at the corner of Mt. Auburn and Holyoke Streets, a site now occupied by Holyoke Center. (See *Mid Cambridge*, page 63). Earlier the Apthorp estate had been subdivided (in 1803), its garden cut through by Linden and Plympton Streets. Despite these activities, the Wadsworth map of 1833 indicates that this neighborhood had not lost the character and small scale of a

37B. CORNER BOYLSTON AND SOUTH STS. IN C. 1890.
(THE HICKS HOUSE PRESENTLY OCCUPIES THIS SITE)

village (Figs. 6, 37B). Most of the new building was unpretentious, as indicated by a few surviving houses; typical is the cottage at 17 South Street, which occupies a low bank and faces a rustic side garden (Fig. 151). (Though the house dates from 1826, it sits above an unusually deep cellar that was first used as an ice house in 1820.) It is surprising and rewarding to discover such reminders of that tranquil era within three blocks of Harvard Square. Slightly later survivors from the Greek Revival decade are a quaint house at 41 Winthrop Street and the unusual side-hall house of three stories at 53 Dunster Street.

Not until the fifteen years of active dormitory-building preceding World War I did most vestiges of the early village disappear. The first large dormitory on Mt. Auburn Street was Claverly Hall (1892; Fig. 38), followed by five others before 1903, each more luxurious than the last. Not containing ground-level stores like those on Massachusetts Avenue, Claverly set the pattern for later dormitories here—indeed this section of Mt. Auburn did not become commercial until the 1920's. The construction of expensive clubhouses began somewhat later, though

38. MT. AUBURN ST. IN 1936, NORTH SIDE

before World War I. Essentially examples of domestic architecture, some of these buildings attain a high level, especially the Delphic (1902), Fox (1906), Phoenix (1915), and Iroquois (1916) clubs (Fig. 39). More original in design though not officially a clubhouse, the Lampoon building (1909) has a whimsical quality appropriate to the headquarters of a humorous magazine.

Also antedating the war was St. Paul's Church, whose striking silhouette forms a backdrop for pleasant vistas from the Mt. Auburn plaza (Fig. 305). The site of this church, built in 1915, had been occupied successively by the mansions of three leading citizens: Daniel Gookin (c. 1670), Spencer Phips (1725) and William Winthrop (1811). (The renovation of the Riverside neighborhood south of Mt. Auburn is discussed in Part Six.)

The Gold Coast plaza has the ingredients of a successful urban space: pedestrian scale, clearly defined limits, a dominant open space enlivened by buildings of architectural value which provide a clear center of interest. A boundary for one side of the triangular plaza is furnished by the clifflike facades of dormitories extending for three blocks along Mt. Auburn Street and rising for four to six stories in height. A second limit is furnished by the hovering mass and graceful campanile of St. Paul's Church closing the vista to the east; the third, by the row of ornate clubhouses facing Mt. Auburn, emphasized by the extensive mass of Lowell House behind. If Lowell House had been placed as close to Mt. Auburn Street as the dormitories, the plaza would have appeared too closed in, but the clubs and several gardens keep the scale from being overbearing. The off-center field and walkway leading to the Lowell House entrance tower creates an informal cross axis to check the strong direction furnished by Mt. Auburn Street. The jewel of this architectural setting is the frivolous Lampoon building (1909) which appears almost miniature in contrast to its neighbors. Unfortunately, structures in the block immediately east of the Lampoon building detract from

39. MT. AUBURN STREET, SOUTH SIDE. FROM LEFT: PHOENIX CLUB, 1915, COOLIDGE & SHATTUCK; IROQUOIS CLUB, 1916, WARREN & WETMORE; SPEE CLUB, 1931, WILLIAM T. ALDRICH

the positive spatial effect, although some buildings are needed there in order to give point to the open space of the triangular plaza. As elsewhere, trees would be more appropriate than parked cars.

The Mt. Auburn facade of Holyoke Center was designed with an eye to the space around it. A lower wing projects toward the street at the Holyoke Street corner so as to enclose the space of the plaza we have been discussing, yet it is recessed at the Dunster corner where Mt. Auburn and Dunster Streets are congested. On another corner the old brick horsecar stable was imaginatively renovated as a series of boutiques and studios in 1972 after serving half a century as a garage annex. One could hardly ask for a happier architectural reincarnation, and one only hopes that other developers proceed with similar thought and skill.

Brattle and Eliot Squares

Brattle-Eliot Square is still another entity in the larger Harvard Square neighborhood. Lying on the southwest edge of the 17th-century town, the terrain called the Ox Marsh was originally swampy, bordering the town creek. One of the town's two springs flowed where the Touraine store now stands, and Eliot Street follows the alignment of Creek Lane at the western edge of the town. Lower Brattle Street, called the Highway to Watertown, provided access to house lots in the West End (distributed in 1634) and served as a short cut, joining the old "highway" at what is now Mason Street. In the 18th century there was relatively little change in the area after the Brattle family bought eight early house lots and built a mansion in 1727 at 42 Brattle Street (Fig. 107).

Upon Thomas Brattle's death in 1801, this property was parceled off—the first of the old estates to be broken up—but the Wadsworth map of 1833 indicates that this neighborhood was slow to change (Fig. 6). Only nine buildings stood on the north side of Brattle Street between Harvard Square and what would one day be Church Street—the latter not cut through until 1834. Some of the houses were very comfortable, as can be seen by the dwelling at 11 Hawthorn Street (1813), formerly at 45 Brattle Street. The town creek was filled in, probably in 1803 when Mt. Auburn Street was extended west to Elmwood Avenue, part of it on a causeway across the marshes along the river, as an inducement to Boston-bound travelers from the west to make use of the West Boston Bridge.

Other relics of this period are two houses at 98 and 106 Winthrop Street, dating from 1806 and probably before 1801, of which one yard is half a story below the present street level, separated from its neighbor by an eight-foot retaining wall of Roxbury pudding-stone (Fig. 40). This change in level resulted from efforts to terrace the flank of the hill into flat house lots. It is unlikely, however, that the retaining wall dates from the 17th century since semi-quarried Roxbury pudding-stone came into general use only after the Revolution. Nevertheless, it is the only early topographical feature in this part of town not obliterated by the construction of the subway tunnel to the MBTA yards in 1912 which raised the level of Brattle Square. Survivals from the past such as the Winthrop Street wall endear the city to those who know its history.

40. RETAINING WALL, 98–106 WINTHROP ST., 18TH CENTURY (?)

Building was intermittent during the middle decades of the 19th century. Around 1840 it seemed that a neighborhood of fine residences would spring up near the old Brattle mansion. E.A. Chapman constructed a temple-fronted house at the corner of Mt. Auburn and Eliot Streets (Fig. 154), and Samuel Batchelder built a Gothick cottage on what is now Mifflin Place (Fig. 176). But the residential character of the area began to change when a perfect elephant of a building, the Brattle House, was erected in 1849 on the site of the Touraine store (Fig. 40A). A huge wooden cube with ungainly Greek Revival trim designed by J.B. Merrick, it was a 106-room hotel boasting a hot air furnace and hot and cold running water in every room. Water was supplied by a spring on the premises (the original town spring), and the building was close enough to the river for drainage at a time when there was no city sewer. A financial fiasco from the outset, the building was owned for a time by the college as a dormitory for law students until acquired in 1865 by the University Press. The Press remained here until 1895 when it moved to a new plant and the hotel was demolished. (The second press on University Road was also demolished in 1970.)

A decade after the Civil War two large structures were added: a police/fire station built in 1874 on the present site of the Treadway Motor Inn, and a four-story office and store building built in 1875 at 13-15 Brattle Street. The latter, which housed the offices of the horsecar company, was the first large commercial building in the area. In 1889, Brattle Hall was built and its brick front was added in 1907. When the subway tunnel was constructed in 1911, the grade was raised by 2 to 4 feet and this encouraged the rebuilding of stores

40A. VIEW OF BRATTLE SQUARE FROM HARVARD SQUARE IN C. 1870 SHOWING BRATTLE HOUSE (1849) IN BACKGROUND AND SMALL TRADE SHOPS AND WORKSHOPS IN FOREGROUND. ALL DEMOLISHED

around Brattle and Eliot Squares. Continued commercial activity had driven away the wealthy residents in the 1850's and discouraged high-class apartment building in this area around 1900.

Even less attractive is the area beyond Eliot Square to Memorial Drive, occupied by the MBTA subway and trolley yards. This large tract was in the 17th century the Ox Marsh which was generally used for grazing and salt hay. The agricultural use of the Charles River tidal marsh was discontinued by the 19th century because of river pollution and urban encroachment along Eliot and Mt. Auburn Streets. After the Civil War, a dike was built along the Charles River and the land was ditched, drained, and filled. In 1871 horsecar barns were built along Murray Street on this fill. In 1889 these streetcar yards were expanded to accommodate new electric trolleys, and by the turn of the century the entire area was a collection of barns, yards, and stagnant water (Fig. 67), all quite unattractive. The carbarns were demolished in 1910 and facilities for the Cambridge subway and streetcat routes were erected on the site, retaining Murray Street as the division between the subway and streetcar yards. After Harvard finished its building program across Boylston Street in the early 1930's on former river marsh, and the commercial activity of Harvard Square began to expand towards Eliot and Brattle Squares, these storage yards became aesthetically and functionally inappropriate. The MBTA is relocating its yards in Boston, and the site will soon be developed for the Kennedy Library complex. Somewhat controversial because of the scale of the development and projected tourist traffic, the complex is planned to include the John F. Kennedy Presidential Library, Museum, and Archives; the Institute of Politics; and the John Fitzgerald Kennedy School of Government in a monumental structure designed by I. M. Pei (Fig. 11). The focus of the building is a pyramidal glass tower sited on the Charles River, a spectacular entranceway to the museum collection. The other facilities will be located in a five-story crescent-shaped structure wrapped around an open court-yard. A large area at the corner of Boylston Street and Memorial Drive will be landscaped as Commonwealth Park. The monumental building and expansive grounds will provide a dramatic transformation of the MBTA yards and former marsh and introduce a new scale of development to the Harvard Square area.

Between 1913 and 1930 the architectural history of the general district southwest of Harvard Square was undistinguished. The impact of the automobile was reflected in the construction of five commercial garages and five filling stations, none an architectural asset. A general rebuilding of store and office buildings facing Brattle Square came about in the 1920's, as evidenced by the cast-stone trim used to ornament brick buildings, an economy version of the handsomer Georgian Revival architecture current in Harvard Square. Other buildings were replaced in the 1930's, this time in limestone and of Moderne design, a manner popularized by the Chicago World's Fair of 1933 and a harbinger of more drastic changes to come. The most elaborate of these was William Galvin's Federal Savings and Loan Association (1937) with an NRA-style eagle etched in glass above the door. A wave of new commercial construction commenced in the 1960's at Story and Brattle Streets with the erection of three contiguous buildings: TAC (1966), DR (1969; Fig. 61), and Brattle Square Office Building of 1970 (discussed in Part Three).

Save for these three buildings, banality prevails. The offices and stores surrounding the twin squares are visually inadequate for so large an open space, and the historic significance and urban potential of Winthrop Square is unrealized, while two points of historical interest—the old Brattle mansion at 42 Brattle Street (1727; Fig. 107) and the Dexter Pratt house at 54 Brattle (1808; Fig. 62)—are stifled by mundane or aggressive neighbors. Yet it is here that the potential for change is greatest, as the result of plans for the new Kennedy Library, of the possibility of an extension of the MBTA subway, and because the buildings now standing here are not commensurate with the value of the land. In particular, the three large triangular blocks facing Brattle or Eliot Squares offer splendid opportunities for redevelopment as master blocks in the manner of Holyoke Center. An excellent start in this direction has already been made in the three new structures near Story Street, but it is imperative that commercial building be allowed to creep no further west than it already has. With imaginative planning the historic landmarks just referred to could be used to accent new buildings designed around them and to recall the long and interesting history of this neighborhood.

One very encouraging innovation in the Harvard Square area has been the transformation (in 1964-67) of Palmer Street from a shabby alley into an intriguing passageway. Construction of the new Harvard Coop Annex, connected by a bridge to the old store, was followed by tree-planting and the repaving of the entire street with granite paving blocks and brick walkways. The view up Palmer Street terminates in the renovated four-story carriage factory of 1857 at 26 Church Street, which forms an admirable counterpart to the Coop addition, and in the gabled facade of 31 Church Street, built in 1864 as a police station (Fig. 316). These two mid-19th-century brick buildings stand at strategic locations and should be preserved. Palmer Street is a heartening demonstration of how an urban environment can be enhanced when citizens are interested and when attention is paid to details of construction and to preservation.

41. MASSACHUSETTS AVE. IN C. 1875 LOOKING NORTH

PART THREE:
CHARACTERIZATION OF NEIGHBORHOODS

The following section of the report examines the visual aspects of the urban environment with twofold purpose: to characterize each residential area and to explain what brought that character about. Old Cambridge will be divided into three large neighborhoods: Brattle Street, Avon Hill, and what we shall call the Lower Common area. Each major area will be broken down into smaller neighborhoods for specific comment; each street or cluster of streets will be considered separately, beginning with Massachusetts Avenue on the district's eastern boundary. Non-residential areas like Harvard University and Harvard Square are dealt with separately.

The pattern of growth of Old Cambridge cannot be understood without recalling what has been summarized in Part One about the main channels of traffic, landownership, factors affecting the intensity of land use, and the economic basis for Old Cambridge's development. Although the matter of transportation has been touched on before, one factor must be emphasized. When horsecars came into use in 1856, they followed the routes established by omnibuses, and when electric trolleys replaced horsecars after 1889, the same thing happened, with one important exception: the residents of Brattle Street successfully resisted the introduction of a trolley line along their street, a fateful decision, for had the trolley been routed along Brattle, that street undoubtedly would have attracted apartments and commerce as did most other trolley-car streets in Cambridge and Boston (Figs. 9-10). Now, however, seventy-five years later, the automobile threatens to do to Brattle Street what the trolley was prevented from doing. But by the same token Massachusetts Avenue stands to improve if some of its surface traffic can be channelled underground in a subway.

Ownership of land exerts a direct influence upon the way streets are laid out. Even the initial distributions of land by the Proprietors of Common Lands centuries ago have left discernible marks on the street pattern of Old Cambridge. These early distribution are summarized in three maps (Figs. 5, 42, 43). (Early policies regarding ownership of common land were discussed in Part Two.) Of still greater impact on street layout and the visual character of a specific neighborhood are the date of development and the objective of the promoter. More detailed maps accompanying discussions of the different neighborhoods attempt to present three types of information: original boundaries when the area was first conveyed to private ownership, the date and name of the later subdivision's promoter, and present street locations.

Massachusetts Avenue

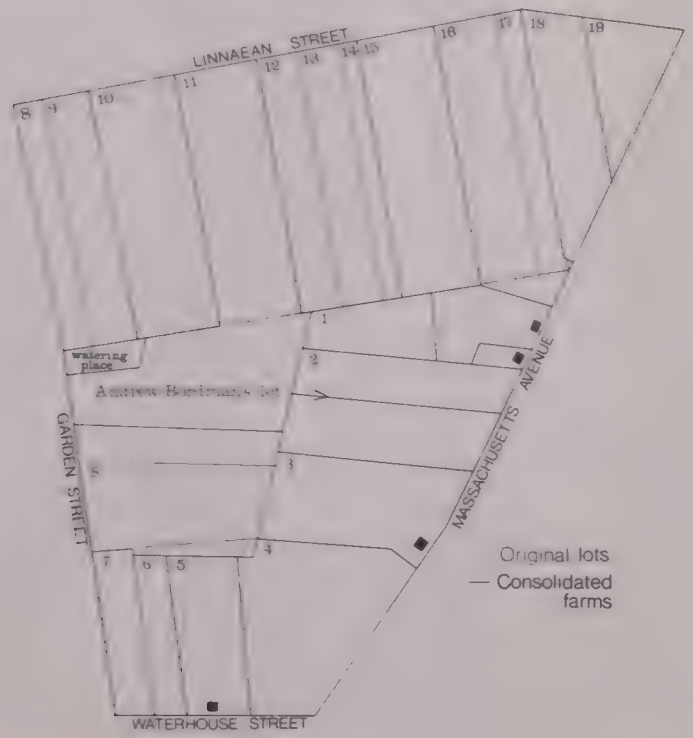
Massachusetts Avenue has been known by many names: Highway to Menotomy; the Great Road; Road to Concord; and after 1841 North Avenue, an appropriate designation for one of the city's few major streets whose axis nearly corresponds with a cardinal direction. The name was changed again in 1894 when the completion of the bridge over the Charles River at MIT made it possible to correlate Cambridge and Boston street systems to form a major cross-town thoroughfare. At that time, the names of the various streets incorporated in the route were changed to Massachusetts Avenue. Although the original highway led west to Concord, it started from Cambridge Common by going due north in order to avoid Avon Hill and the bogs near Fresh Pond.

The early highway could hardly have been considered a residential street, for as late as 1830 only eighteen buildings stood between what is now Waterhouse Street and Porter Square. Nineteenth-century writers speak of it as a bleak, dusty thoroughfare with few trees, lined with scattered farmhouses, mostly weathered black. Building activity did not gain momentum until mid-century; Walling's map of 1854 indicates twenty-six houses fronting the street, several of these approached by a carriage drive across spacious lawns (Fig. 7). Old photographs record that the scale and character of these new dwellings were quite as ambitious as anything then being built on Brattle Street (Fig. 41). Although Massachusetts Avenue as an address lacked the prestige of the pre-Revolutionary Brattle Street estates, it enjoyed more direct horsecar connections with Boston and the eastern parts of Cambridge, and this convenience probably influenced some householders to settle there (Fig. 9). From the *Cambridge Directory* of 1860 we learn that sixteen of the fifty-eight heads of families residing on North Avenue between the Common and Porter Square worked in Boston, only five in Harvard Square. By profession sixteen were engaged in commerce, twenty-one were in the professions, five were connected with Harvard, and six were listed as laborers.

If North Avenue owed its early preeminence to transportation facilities and an easy flow of vehicles, its early demise as a street of fine residences is attributable to the same factors: the trolley line attracted apartments and then commercial development, while in recent years heavy automobile traffic has rendered the street unattractive for residential purposes. Old homesteads with their large lots have been the inevitable victims, with the result that, of the sixty-five mansions along Massachusetts Avenue in 1894, only sixteen remain today and most of these are hidden behind stores built on their former front yards. These survivors serve out sorrowful terms as rooming houses and cheap apartments, waiting their turn for the demolition crew.

Nevertheless, in this process of transformation a few interesting apartment houses made an appearance: the "Montrose" and "Dunvegan" at 1648-1654 Massachusetts Avenue, built in 1898 as the first luxury apartments in the city, and the "Oxford Court" at 1-9 Arlington Street, perhaps the best of its kind erected in the 1920's. (These structures will be dealt with in the final volume of the series.)

42. LOWER COMMON AREA SHOWING ORIGINAL DISTRIBUTION IN 1724 AND OWNERSHIP IN 1775



The Lower Common

The large district bounded by the Common, Massachusetts Avenue, Garden, and Linnaean Streets has a certain visual unity which results from a homogeneity of history, topography, and occupancy. Originally part of the Cambridge Cow Common and called the Lower Common, this area of about 63 acres was divided in 1724 among the Proprietors into twenty parcels ranging from 1 to 5¾ acres. For several generations it remained primarily pastures, orchards, and gardens, though in the course of time some fields were consolidated in larger parcels (Fig. 42). Although this consolidation made possible some subdivision on lines that differed from the initial partitioning, many of the original boundaries can be distinguished in the present street layout, especially in the shape and location of Shepard Street and the prevalence of parallel streets north of it. In the middle decades of the 19th century, when owners subdivided their holdings independently, other variations in street layout and lot size were created (Fig. 43). As the result of such piecemeal development the area is full of unexpected turns and dead ends which defy motorists attempting to traverse the city (thereby providing a haven for residents who shun modern traffic).

43. LOWER COMMON AREA SHOWING DATES OF SUBDIVISION

44. ARSENAL, GARDEN ST., 1816. PHOTO OF 1863. DEMOLISHED 1887

45. FOLLEN ST., NORTH SIDE

Bounded by four heavily used streets or thoroughfares, the Lower Common is further divided by two cross streets, Shepard and Chauncy, which, because they do not connect with major streets beyond, are not burdened with traffic. These two cross streets divide the larger district into three master blocks.

The Waterhouse-Chauncy block lies adjacent to the Common. As late as the 1790's it was held in three large parcels. One piece, running for some distance along Garden Street, was owned by the Commonwealth, which had bought it in 1796 as the site for a new arsenal. Constructed in 1816, the three-story, brick arsenal had simple Federal proportions and was equipped with iron window shutters. When erected, it measured 40 by 100 feet but later was doubled in width (Fig. 44). Three smaller buildings were grouped around it, all of brick: superintendent's house (1848), keeper's house (1852), and machine shop (1864). This group stood on the site of the Continental Hotel until demolished in 1887 when the land was purchased by Edward Abbot as the site for his residence, today the Longy School of Music (Fig. 225). The only reminder of the early occupancy is the name, Arsenal Square, given to the small triangular green formed by Concord Avenue, Garden, and Chauncy Streets.

The rest of this large block of land was held by two owners: the Walton brothers and Dr. Benjamin Waterhouse, the latter a surgeon in the Continental Army and the physician who introduced the use of vaccine in this country. In 1831 part of the Walton land was sold to Charles Follen, who laid out the eastern end of Follen Street in 1836, but the L-shaped street was prevented from continuing through to Garden Street by the arsenal. In 1848 Mrs. Waterhouse arranged a land exchange with the Commonwealth that permitted her to have the street cut through.

Building advanced slowly in this area. In the 1790's there were only three structures on Waterhouse Street facing the Common: the home of Dr. Waterhouse, at that time only three bays wide, Walton's carpenter shop, which stood at 11 Waterhouse Street, and the Red Lion Inn of 1794, built on the site of the Christian Science Church but moved (1861) to Wendell Street and later demolished (Figs. 33-34). Just north of the inn but facing Massachusetts Avenue two Greek Revival houses were built in 1831, one of which (1564) still stands.

Follen Street runs somewhere near the line of the original "Palysadoe;" indeed, it is probable that the watercourse mentioned in the 19th century as sometimes flowing along the street ran in the trench that was part of those 1632 fortifications (Fig. 3). Today, however, no quieter, more peaceful corner of Cambridge exists; it enjoys a splendid isolation, unity, and sense of neighborhood recalling the 19th century (Fig. 45). Follen Street, in fact, was the last neighborhood in the city to relinquish its gas street lights just before the Second World War. It is unusual for a street laid out in two parts and at different times to achieve such visual unity. Although the seventeen houses fronting the street have a chronological span of more than a century—with five erected since 1900—the street is harmonious because the houses are spaced closely enough to maintain the dominance of the street and because trees fill the comfortable intervals between buildings.

The architecture of the houses runs the gamut from early Greek Revival (29, built in 1837, the oldest house on the street; Fig. 152) to contemporary work. Number 22 (1951; Carleton Richmond) illustrates how a well-designed modern building can enhance a traditional neighborhood (Fig. 288). An imposing Greek Revival house of 1844, 9 Follen Street, was bequeathed to the Cambridge Historical Society in 1937 by Maria Bowen and resold by them with appropriate historical restrictions on exterior modifications (Figs. 45, 156). Its tall, upright proportions are comparable to those found in Bracketed or Italianate designs, and it makes an instructive comparison with the earlier dwelling at 29 whose proportions and delicate scale are almost Federal. There are several good Mansard houses, the most ornate of which is at 44: built in 1862 on the site of the old Red Lion Inn, it was moved to the present location in 1923 to make way

for the Christian Science Church. Another outstanding house has an unusual location at the rear of the lot at 13. Designed in 1900 by Guy Lowell for his sister, it was enlarged in 1923, but the attached barn may well go back to 1838 when the gardener's cottage for the Waterhouse estate occupied this site.

The adjacent master block bounded by Chauncy and Shepard Streets is so intricately cut up that one needs a map to guide one through. Because both Chauncy and Shepard Streets connect Massachusetts Avenue and Garden Street, they carry more traffic than is desirable, yet the cars parked solidly on both sides of the street allow room only for a single line of traffic in one direction; this slows the passage of cars and thereby cuts down noise to some extent.

Apartment-builders were attracted to Chauncy Street in the 1920's because of its accessibility to Harvard Square and to trolley transportation on Massachusetts and Concord Avenues, and because the lots are deep. Utilizing various solutions of massing and placement, the resulting apartment houses dominate the street and provide instructive lessons in the organization of an urban environment. The T-shaped plan with stem toward the street and entrances located near the crossbar has the advantage of reducing the expanse of facade fronting the sidewalk and of thus minimizing the impression of bulk. The U-shaped plan around a front courtyard creates an inviting vista from the street but places numerous living units on the outer periphery of the building close to the property line and makes them dependent on neighboring yards for light and air. The recent tower-shaped apartment set in the center of the plot allows for light and air, but the required parking lot surrounding it detracts from the streetscape.

Clearly one lesson to be learned from Chauncy Street is that there is a point of saturation in apartment-building, and a certain number of residences surrounded by yards and trees must be retained if a barren, sterile environment is to be avoided. When this is neglected, as in the case of the Continental Hotel (1929) and adjacent apartments, the street becomes forbidding (Fig. 46). It is fortunate that a similar concentration of apartments opposite the hotel has not occurred.

46. CONTINENTAL HOTEL, 25 GARDEN STREET, 1929, AND ADJACENT HOTELS

On the other hand, a welcome addition to this streetscape is the recent (1966) enclave of town houses on Chauncy Lane: the broken geometry of the short rows is pleasing after the oppressive masses of the big apartments, and the cul-de-sac opens diverting vistas from the street (Fig. 293).

Equally clogged with traffic but more residential in character is Shepard Street, which exhibits noticeable differences in scale and visual qualities at its east and west ends. In part this is due to the circumstances of its initial layout: one parcel of land was laid out in an L-shape as Avon Street in 1845; later, Shepard Street was cut through by the city in 1852 and connected with Avon, part of which was then renamed Shepard. The curious thing is that one notices the cramped feeling of Shepard Street's eastern end when walking east but much less so when moving west, a contrast that is somewhat masked by the slight bend in the street. The sense of congestion is relieved at 22-26 Shepard Street by the manner in which a group of five multi-family buildings (twelve units) of various sizes and ages are grouped around a modest side yard to form a sheltered cove (Fig. 47). While these buildings may be architecturally undistinguished and the space limited, the sense of enclosure without crowding that is achieved is instructive. Quite different at the street's west end are the deeper front yards and well-spaced houses, to say nothing of the public scale and formality of the Radcliffe dormitory quadrangle. Of architectural interest are the double house at 27-29 (1852), the row houses at 38-44 (1869), and the exuberant Queen Anne house of 1883 at 52.

From a map one might expect Langdon Street to be one of the most interesting architectural corners of the city with its small park locked in the center of a large block and connected with the outside world by crooked streets—an expectation that, unfortunately, is not realized. Not connecting with Langdon but a part of the same large block is Walker Street. Laid out in 1868, its L-shape carries on the shape of the nearby watering place for cattle that was reserved when the Common was partitioned. This pleasant street of single and double houses is off the beaten track, and houses here are eagerly sought after. Particularly attractive are the Mansard cottages that come in singles, doubles, and in rows (built 1871-74) and the audacious little Queen Anne House at 44 (1880; Fig. 213).

47. 22–26 SHEPARD ST.

The largest of the three master blocks lies between Shepard and Linnaean Streets. Extending between them are a series of short, quiet residential streets. With houses built close to sidewalks, the spatial definition of these streets is clear, and this street orientation of dwellings is unimpaired by a heavy flow of traffic. Irregular spacing between certain houses dispels a sense of crowding, and the few instances of a dwelling placed at the rear of a lot add pleasant variety to the streetscape.

Although these streets look rather similar on the map, they were subdivided at different times and their characters vary considerably. Hurlbut Street was laid out in what was long the rear field of a large house facing Massachusetts Avenue (which was afterwards moved back to a new location at 1 Potter Park; Fig. 155). As a considerable demand existed by 1882 for building sites convenient to the avenue, this new street was rapidly built up with eight rather large dwellings that constitute a showcase of Queen Anne designs (Fig. 48). Across the street two apartments were eventually (1901) put up on land that had been held too long to attract builders of single dwellings; they are unfortunately incompatible with their neighbors.

Bowdoin Street, which combines lots 16 and 17 of the 1724 distribution, was laid out in 1842. Longer and of uneven architectural interest, its houses range from a Federal one at 35 (the Elizabeth Frost house built in 1812 and moved here in 1846 from 1700 Massachusetts Avenue) to emasculated three-deckers and an admirable block of row houses built in 1960. Parts of the street are very good, especially near the Martin Street intersection and the bit adjacent to the Federal house. Gray Street has even more variety, both in terms of architectural style and of types of living unit. When the Federal house at 26 (built in 1815 by David Frost) was moved here in 1889 from 1705 Massachusetts Avenue, it was unfortunately placed directly on the building line rather than a little back from the street, a position that would have expressed fitting deference to its seniority and have introduced desirable spatial variation to this closely packed street. Decidedly detrimental to the district is the apartment building at 1-11 Bowdoin Street, built upon the sidewalk line and badly out of place and scale.

Avon Street, including the section that is now part of Shepard Street, was laid out in 1845. At that date land in this part of the city was plentiful and house lots spacious. Single and double houses intermingle and differences in architectural style do not disturb us because the proportions and building materials are very much alike (Fig. 49). Despite two groups of intrusive apartments, Avon Street preserves a pleasant record of a comfortable mid-19th-century suburban street. Comparable houses survive in considerable numbers in other parts of the city: on Pearl and Putnam Streets in Cambridgeport, for instance, on Broadway in Dana Hill, and on Thorndike Street in East Cambridge. The superior effect of the Avon Street buildings comes from the absence of asphalt shingling and the fact that architectural trim has not been removed under guise of modernization.

At a right angle to these is Martin Street, probably unknown to most Cambridge motorists because it can only be approached by a sequence of one-way streets and precisely timed turns. As a result, few cars reach it and room exists for children to play and ride bicycles and for residents to park. Consisting mostly of

48. HURLBUT ST., WEST SIDE

Queen Anne houses with a sprinkling of earlier ones, the street possesses an unusually felicitous quality, and the intersection of Martin and Bowdoin Streets is one of the best Queen Anne corners in the city. The severe simplicity of 51 Martin Street (1850) is unusual; a brick house that has been plastered and scored to resemble ashlar, it appears as if the owner had struck off all ornamentation as a matter of conscience (Fig. 185). Martin Street also has a charming late Greek Revival double cottage at 52 (1849).

Branching off Martin is Wright, a short street with several pleasant Mansard cottages, and beyond that Hudson Place (Fig. 50). Despite its village air, this cul-de-sac is no more than one block from Massachusetts Avenue. This small piece of real estate was developed in 1843 quite independently of its neighbors, showing how parcels adjacent to a main thoroughfare tended to develop before lots lying in the middle of the master block.

49. AVON ST., WEST SIDE

50. HUDSON PL., WEST SIDE

Walker Street, the last of this group of north-south streets, is now dominated by buildings of public scale: the Peabody school, the Radcliffe dormitories, and the apartments on the Shepard Street corner. At 124 is a structure built in 1938 as a private apartment but now absorbed into the geometric composition of the quadrangle, demonstrating how much more pinched in scale were apartments than Radcliffe dormitories of the same period.

Linnaean, the third cross street linking Massachusetts Avenue and Garden Street, marks the original limit of the Common. Describing an irregular arc, it skirts the bottom of Avon Hill and forms a division between the larger houses on the hill and the somewhat more modest Lower Common section. Expected from the first to carry a fair amount of traffic and laid out on public rather than on private land, Linnaean Street is wider than Chauncy or Shepard, and cars travel in both directions at higher speeds. As a result, one is more aware of the street itself—pavement, traffic, and the noise it generates—than of the buildings which line it and whose facades define the street corridor. This is especially so at the west end where the low mass of the Botanic Garden apartments with their intermittent garage courts is too inconclusive to establish compelling limits for the street. However, the construction in 1971 of the handsome row of Radcliffe faculty houses does much to improve the spatial definition of this end of the street.

The visual components that make up this street are an uneasy mixture of single-family houses of many different periods, a well-designed elementary school, the Radcliffe houses and quadrangle, and ten apartment buildings, some of them shockingly large for their lots and badly sited as well. Perhaps because the street is wide and permits lengthier vistas, the apartment buildings stand out more insistently here than on Chauncy or Shepard. On the other hand, the cadence of street intersections is pleasant and unrehearsed and the cross streets provide pleasant glimpses of residential areas. From Gray Street to Potter Park one discovers an interesting variety of house styles: the well-maintained Mansard at 32 (1863; Fig. 200), a competent Queen Anne design at 28 (1890; Fig. 233), and the unforgettable house on the corner of Potter Park (Fig. 155). Beginning life in 1839 as a sober Greek Revival edifice at 1740 Massachusetts Avenue, the latter building was moved to its present location in 1883 and subjected to two campaigns of remodeling (1883 and 1904).

The north side of the street contains a nice sequence of Mansard cottages (33, 37, 39) built in 1870-71, with the middle one enlarged in 1890. But the Linnaean Street house that remains in memory is the Cooper-Frost-Austin house at 21 (Figs. 94-95). The oldest surviving building in Cambridge (c. 1691), it stands serenely in a grove of trees, indifferent to traffic and reminiscent of the herds that once grazed across the roadway within the Common.

Avon Hill

The Avon Hill area is bounded by Massachusetts Avenue, Linnaean and Raymond Streets, and by Upland Road. Less than a mile from Harvard Square, the region was so sparsely populated in the 18th century that a clay pit on the east slope of the hill was deemed a proper place for the public gallows. Northward beyond Avon Hill—in what today is Porter Square and North Cambridge—land was still held in common, but Avon Hill itself is part of the New West Fields allotted to individual owners in 1638. The accompanying maps indicate the 17th-century lots and 19th-century subdivision (Figs. 51-52). As late as 1830 there were only four houses on Avon Hill; by 1854 there were eighty-one (Fig. 7).

Subdivision was spotty and extended over forty years. As early as 1847 a small division of lots was projected near Massachusetts Avenue along Upland Road—at that time called Lambert Avenue—but no houses were built there until the late 1860's. The first real change occurred in 1869 when the Austin family sold a plot of 5 acres on the very crest of the hill to Melendy and Dexter, who built towered mansions for themselves and sold surrounding lots for smaller Mansard houses. (Henry J. Melendy's own dwelling still stands at 81 Washington Avenue;

51. AVON HILL AREA SHOWING ORIGINAL DISTRIBUTION AND OWNERSHIP IN 1775

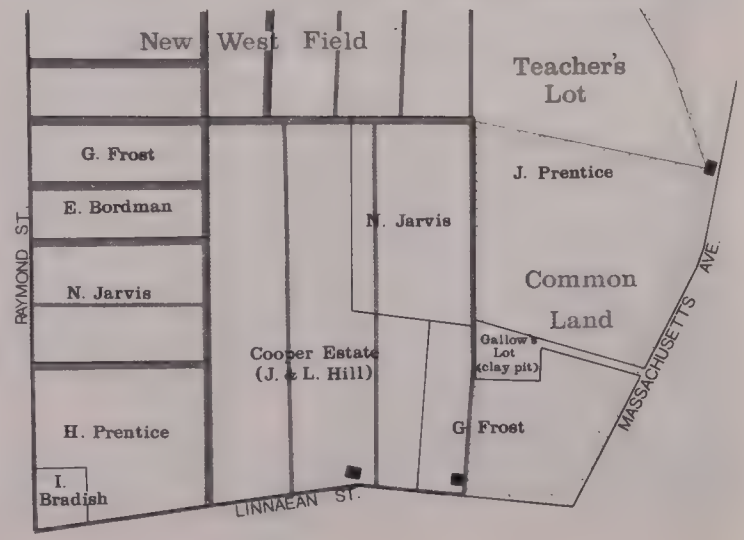


Fig. 203.) In the same year, John Davis bought the adjoining 5-acre plot and erected his house at 2 Walnut Street (later moved to 33 Arlington Street), as well as five Mansard houses on Arlington. But after this brisk beginning—and the result doubtless of the severe economic slump of 1873—no further development took place until Sumner Brooks in 1883 laid out Humboldt Street in the field behind his mansion on Massachusetts Avenue. In that year also the Whitney heirs succeeded in selling the rest of the old Prentice farm, which they had attempted unsuccessfully to do forty years earlier. Their holdings included Mt. Vernon Street and Upland Road and extended far enough west to cover the north end of Washington Avenue. The remainder of the Cooper-Frost farm on the southern slope of the hill was subdivided by the Austin heirs in 1886 to form Washington Avenue, Lancaster Street, and Agassiz Street.

Washington Avenue is splendid throughout its length and is unquestionably worthy of preservation. It falls into three distinct architectural zones, which correspond to the independent stages of its subdivision. But the differences between the Queen Anne houses at each end and the dozen or so Mansard designs in the center are obscured by the way the road bends over the crest of the hill. Nowhere in the city can one observe Mansard houses to better advantage, varying from one-story cottages to three-story mansions whose initial tax valuations ranged from $5000 to $13,600. On the southern slope, several large dwellings illustrate how different can be designs we classify as Queen Anne; three of the most interesting (26, 49 Washington, 37 Lancaster; Figs. 251, 230, 220) were built within the space of three years (1887-89) by the same architectural firm, Hartwell and Richardson. While some unfortunate changes have occurred here, these could be corrected without much expense; and most of the examples remain in splendid condition. Apartment-building, fortunately, did not advance above the Linnaean Street corner.

52. AVON HILL AREA SHOWING DATES OF SUBDIVISION

53. WASHINGTON AVE. LOOKING NORTH. PHOTO OF C. 1895

An early photograph of Washington Avenue (taken about 1895) shows typical 19th-century landscape planting (Fig. 53). The absence of shrubs around the foundation was a matter of preference not of the fact that the shrubs were newly planted, as can be judged by the size of the trees. Although this kind of planting precluded the privacy cherished today, it made for a certain clarity and openness; correspondingly this old picture suggests a summer resort at the seashore. An unfortunate but not disastrous change occurred in 1940 when 87 Washington Avenue (a twin to 81) was demolished to make way for three modest houses, 85-89. This cluster directly on the street is nicely interrelated, but small scale and close grouping isolate it among the larger surrounding lawns and dwellings.

Raymond Street was an early alternate route to the Great Swamp and is one of the oldest thoroughfares in the city. Inevitably it attracted two fine mid-19th-century dwellings: the Fuller mansion at 79 (1857) and Jonas Wyeth's mansion of 1858 (demolished in 1922 to make way for Gray Gardens East). Although comparable to Washington Avenue in length, it appears much longer because it is narrower and does not bow as abruptly over the crest of the hill. Architecturally there is an interesting assortment of buildings here, but perhaps more interesting is the variety of garden sizes and concepts. They range from the extensive lawn at 79 with its splendid beech trees recalling the grounds that once surrounded many Cambridge homes and imparting the feeling of a true suburban area, or the uncrowded, well-planned side yard of 60 designed in the 1920's, to recent vest-pocket gardens where privacy on a corner location can only be obtained by boldly walling off the corner of the lot with a high wooden fence (examples of the last are 84 and 95 Raymond Street). Another object-lesson is the parking lot near the Linnaean Street intersection enclosed on three sides by a high, dense privet hedge which screens the unsightly asphalt from both street and neighbors, a solution that should be required for all parking lots in the city in mixed residential neighborhoods (Fig. 54).

54. RAYMOND ST SHOWING PARKING LOT BEHIND 45 LINNAEAN ST.

55. ARLINGTON ST. LOOKING TOWARD MASSACHUSETTS AVE.

Off the southern slope of Raymond is Bates Street, which was laid out in 1886 in a 2½-acre field owned by a family of that name from 1783. And though the two pleasant Shingle style houses (17 and 21) were built at that time, the land in front of them down to Linnaean Street was kept as an open field until 1916, leaving an ample plot available for the well-designed apartment at 41-43 Linnaean Street (1922). The other street opening off Raymond is Bellevue Avenue, laid out in 1886 by the heirs of William Mason, the surveyor, whose house (1846, remodeled 1867) stands at 87 Raymond Street. Lots facing Bellevue Avenue correspond to one of the New West Fields distributed in 1638 to Thomas Parish but owned by the Frost family during much of the 18th and early 19th centuries. By 1894 the street was half built up.

Although Avon Hill Street lies between Raymond Street and Washington Avenue, its character is very different: the lots smaller, the architecture unusually disparate. Some of the houses—especially the bungalow at 71 (1912; Fig. 259)—are quite unCantabrigian in appearance, yet others dating between 1888 and 1897 illustrate several steps in the changing concepts of double-house design.

Perhaps the most interesting thing about Avon Hill Street is the example it gives of the revitalizing of a city neighborhood, and that within the last two decades. At one time property values had fallen, certain buildings were covered with telltale asphalt shingles, and a nondescript store had been squeezed between houses at the northern end of the street. Recently, however, the street has been drastically upgraded, as one can see in the skillful remodeling of 117 in 1958.

Arlington, Walnut, and Mount Vernon Streets also provide instructive comparisons. Although situated in the same corner of the survey district and of comparable early occupancy, the properties derive through different chains of ownership and have recently been subjected to different degrees of remodeling and demolition. Walnut Street and the upper part of Arlington, as we have already seen, was part of the Jarvis farm subdivided by John Davis in 1869; the lower section of Arlington was laid out in a 4-acre plot detached from the old Prentice farm before 1800 and subdivided by William Gates in 1861. Mt. Vernon Street, on the other hand, though plotted in 1847 on another part of the same farm, had very little activity to show before 1883. This whole neighborhood was originally oriented toward Massachusetts Avenue, which as we have seen contained the finest mansions in this part of Cambridge as well as the horsecar and trolley line. Today the situation is reversed; locations near the hilltop and further removed from traffic are more in demand.

Arlington on its long, gradual grade is an unusually pleasant street, with many houses in good condition and the original character of the architecture generally respected. The Mansard houses at the top of the street should be noted, especially 37 Arlington (Fig. 207), built as late as 1874, and so also should the frankly modern additions to numbers 15 and 17. In terms of urban design, most instructive is the way in which two large apartment buildings at the lower end of the street form an insulating barrier against the commercialism, noise, and traffic of Massachusetts Avenue (Fig. 55). A revealing comparison is furnished by Mt Vernon Street, where the houses, though originally somewhat larger and finer, are less well preserved and have been subdivided into smaller living units. Several houses there illustrate how a pleasant Mansard design can be reduced to architectural anonymity by changes in fenestration and by the removal of original architectural trim when metal siding is added. Highly detrimental to this street was the demolition of the large houses on the Massachusetts Avenue corners. Without these visual barriers, the street has been thrown open to the traffic of the avenue and of Porter Square and, as a result, this end of Mt Vernon Street is now little more than an extension of the Sears parking lot.

Walnut Avenue is very different. A 70-foot roadway with grass verges and building setbacks of another 50 feet, this street seems to have been conceived as an oasis of fine mansions (Fig. 56). Instead, the avenue grew up with a range of house types varying from rambling Victorian to clapboard houses of the 1930's (two built on the site of an earlier and larger dwelling) that look all the smaller because of their very large neighbor. Walnut Avenue resembles a street in a small town where space is ample and where the best houses—built over several generations and all well maintained—stand contentedly in roomy yards, quite innocent of variations in scale and architectural style. The large towered house at 9 Walnut Avenue (1887)—handsomer before the wrought-iron porch posts replaced wooden ones—recalls the seaside "cottages" that Boston architects were designing for the North Shore or Bar Harbor in this same period (Fig. 232). At 2 Walnut Avenue is a brick dwelling (1911; E.N. Boyden) as close to a Frank Lloyd Wright experiment as Cambridge ever achieved.

56. WALNUT AVE. LOOKING SOUTH

From 1882 to 1888 Lancaster and Humboldt Streets were being developed by Sumner Brooks, a Harvard professor and son of a Boston financier. Behind his mansion on North Avenue (a site now occupied by the Lancaster apartments) he built thirteen single and double dwellings for renting. The interesting thing about these structures is that although they were built within a five-year period by the same carpenter, N.W. Bunker, they vary enormously. Since several of them are Bracketed designs carrying over a feeling of the 1850's, this group illustrates the conservative nature of the vernacular and provides an instructive contrast with contemporary work by professional architects on Washington Avenue two blocks away. Lancaster Street was the site of the early gallows referred to earlier; they stood at about 15-19, and were reached by the way now called Stone Court. The Proprietors of Common Lands did not sell this plot until 1826, one of their last real-estate transactions.

The Arsenal-Observatory Hill Triangle

Garden Street and Concord Avenue lead in more or less the same northwesterly direction from the Common, with Garden Street keeping to lower terrain between Avon and Observatory Hills over the low ridge on its way to Fresh Pond. Known first as the Way to the Great Swamp and Road to the Brickyards, portions of it were variously called Washington Street and Milk Porridge Lane after the Revolution. The present name given to its entire length in 1848 recalls the important 19th-century landmark, the Harvard Botanic Garden, established in 1805 (Fig. 141). In 1775 there were four houses fronting Garden Street, two less than had existed a century earlier. Concord Avenue was built in 1803 as the Concord Turnpike and operated until 1829 as a toll road by owners of the West Boston Bridge over the Charles River in order to attract travelers to their bridge. As short and direct as possible, the Turnpike cut across the top of Observatory Hill rather than following the longer route of Garden Street. Later, Concord Avenue was the location of a horsecar line and after that of trolley and trolleybus lines to Huron Avenue, so that it absorbed the traffic that would have followed Garden Street (Figs. 9-10).

57. GARDEN ST. LOOKING SOUTH TOWARD LARSEN HALL

The Arsenal Square ends of both streets are congested with large apartments that crowd upon one another. There is, however, one very good vista looking toward the Common between the bulky masses of apartments and hotels on Garden Street which frame the towered form of Larsen Hall, which repeats on a larger scale the roof and chimney silhouettes of Radcliffe College (Fig. 57). The portico of the recent New England Guild of Trial Lawyers building (1968) attempts to animate the scene, but its proportions and details compare unfavorably with the Georgian Revival buildings of Radcliffe.

Architecturally the best things on Arsenal Square are the towered granite face of the Longy School of Music and its impressive auditorium added in 1968 (Figs. 225, 58). The latter is a wonderfully sympathetic and successful example of fitting a modern addition to an existing building, in this case one of the finest residences ever constructed in Cambridge. The Longy auditorium demonstrates how a neighborhood benefits when a modern architectural firm (Huygens and Tappé) has the humility and takes the trouble to relate its design to an important existing building. One is also grateful for the five old houses on the other side of the square with side yards that convey something of the suburban air once prevailing here.

58. LONGY SCHOOL OF MUSIC, CONCERT HALL—AUDITORIUM ADDITION, 1 FOLLEN ST., 1968. HUYGENS & TAPPÉ

59. GRAY GARDENS EAST

The eastern portion of the large triangular block bounded by Garden Street and Concord Avenue is filled with single-family houses and apartments. This area was part of the West End allotment of 1634, of which several parcels were acquired in the 1770's by John Vassall and became part of his extensive estate. On the hill above he erected his summer house. Originally the terrain below the hill was uneven, and a spring originating here flowed to a small swamp near Parker Street and thence under Craigie Street to the pond just west of Mr. Vassall's Brattle Street mansion; from there the stream ran along Willard Street to the river. The lower part of the triangle was inherited in 1821 by Craigie's nephew, who sold it to Harvard College in 1841. Harvard kept the hill for its astronomical observatory but laid out Bond Street and sold the rest in 1842 for three large residences. These estates were further subdivided in the 1870's, one building site at 37 Concord Avenue being acquired in 1872 by William Dean Howells. The northwestern end of the triangle was never included in the Vassall-Craigie property and belonged to the Hill family between 1773 and about 1870. It was the Hills who laid out Madison Street in 1846—rather prematurely because only two houses were built here before 1871 when Holly Avenue was put through. (The Gray Gardens West portion of this land was not developed until 1922.)

In the middle course of Garden Street, Radcliffe's new Hilles Library (1965) and Currier House (1970) appear less monolithic and crowded than do the apartment houses near the Common, and they form a transition to the residential zone at the upper end of Garden Street. Here are two fine residences: the Dixwell house at 58, a Mansard design of unusually early date (1848, remodeled 1901) and the Asa Gray house at 88 (1810; Figs. 140-141). Attention should also be called to Garden Terrace, one of the most delightful cul-de-sacs in Cambridge, laid out in 1904. Further up, at 99 Garden Street, are Mary Wyeth's Greek Revival cottage (1842; Fig. 166) and the much altered Noah Wyeth farmhouse of 1782. This handsome stretch of Garden Street is terminated beyond Huron Avenue by a fork in the street and the facade of the fire station (1904).

Gray Gardens East and West form a pleasantly unified neighborhood and, along with Coolidge Hill, provide the best illustration in the city of domestic architecture of the 1920's (Figs. 59-60). The district was prodded into being in 1922 when a speculator proposed to buy the 8½-acre Dresser estate—originally owned by Jonas Wyeth II—and to construct rows of two-family houses that might have resembled those in so many of the faceless streets in Boston suburbs. Enough interested persons were found to acquire the land, establish the Garden Street Trust, and agree upon a set of thirty-year restrictions. The street pattern was laid out (by a member of the trust) providing an average frontage of 65 feet. Occupancy was limited to single families; lots were not for sale to builders or speculators; and an architectural control board was established, even though it was never found necessary to invoke its authority.

More effective than legal covenants governing architectural conduct were sociological and economic forces in providing the basis for the district's unity. The owners seemed to have a similar manner of life, avoiding ostentation, wishing quiet gardens, and requiring houses small enough to be staffed for the most part by one maid (Figs. 59-60). The initial building was done between 1922 and 1930. Although the houses were designed for specific owners in a variety of styles, the district appears so harmonious that one is surprised to find from building permits that estimated costs ranged from $7000 to $50,000. That mass, material, and placement is more important to a harmonious environment than style of architecture is demonstrated by 22 and 17 Gray Gardens East, one a three-story contemporary design replacing a house that burned in 1962, the other a Georgian Revival (1958) of one story whose garage directly faces the street. Here also one can compare quality of design and detailing of houses that must all be classed as Georgian Revival. Number 4 Gray Gardens West is skilful in detail and successful in relating a traditional house plan to a difficult triangular lot (Fig. 274); wooden houses like 9, 11, 26, or 27 Gray Gardens East are versions of a type produced by the tens of thousands in suburban North America during the 1920's; while others are brick boxes whose claim to being "Georgian" is little more than a stock entranceway or cornice. Not surprisingly the most "authentic" house in the area is one built about 1798 in Duxbury and moved to 20 Gray Gardens West in 1930 (Fig. 133).

60. GRAY GARDENS WEST

61. DESIGN RESEARCH, 48 BRATTLE ST., 1969. BENJAMIN THOMPSON & ASSOCIATES. AT LEFT: BRATTLE SQUARE OFFICE BUILDING, 1970, SERT, JACKSON & ASSOCIATES

Brattle Street

The third major residential section of Old Cambridge, that of Brattle Street, will be discussed in four parts: Brattle Street, streets lying south of Brattle, streets lying north of Brattle, and the more recent Larchwood-Coolidge Hill districts. The discussion naturally begins with a characterization of Brattle Street itself, the oldest and one of the most prominent streets in the city.

Various parts of the street we think of as a unit were, in fact, opened at different times and have gone by different names. From Harvard Square to Brattle Square (along with Eliot Street), it was originally called Creek Lane. The stretch from Brattle Square to Mason Street was called the Highway to Watertown, established when the West End was laid out in 1634. The long stretch between Mason and Fayerweather Streets was the old Path to Watertown, in existence before the foundation of Newtowne in 1630. The section from Fayerweather Street to the Mt. Auburn intersection was not cut through until 1812, because the original highway was routed along Elmwood Avenue and Mt. Auburn Street.

Brattle Street is one of the most celebrated residential streets in this country; it constitutes a kind of showcase of domestic architecture, with specimens of almost every period, from Georgian mansions erected before the Revolution to prize-winning residences built after World War II. It contains, moreover, two houses that no book on North American Architecture may ignore: the Longfellow house (1759; Fig. 116) and H.H. Richardson's Stoughton house (1882; Fig. 227). As a fashionable address it is doubtful if any other residential street in this country has enjoyed such long and uninterrupted prestige. Other cities may possess a greater concentration of houses from a given era, as Chestnut Street in Salem, or they may have streets with more palatial dwellings, like Bellevue Avenue in Newport, but no other one street can tell the story as completely as does Brattle.

The popular image of Brattle Street is unquestionably one of stately, clapboard, pre-Revolutionary mansions on Tory Row, but the perceptive viewer will discover that the street has a much wider architectural representation. Of the fifty surviving houses that front on it between Brattle Square and Elmwood Avenue, only six dwellings, a fraction of the total, predate the Revolution. Even buildings from the early 19th century are scarce: only four were built between the Revolution and 1830, another seven between that date and 1854. A far larger number (nineteen) were built during the last quarter of the century; another fourteen, after 1904.

Not only are the late 19th-century houses numerous, their quality is good and their pristine condition unequaled. More pretentious Victorian dwellings were certainly erected elsewhere, but neighborhoods of this era in most American cities have given way to rooming houses, stores, and front-yard car lots. Families with the means to maintain large establishments usually elect to live in newer suburbs. In Cambridge, however, proximity to educational institutions and access to Boston have always made the Brattle Street area desirable, a condition encouraged in recent years by the difficulties of commuting. In consequence, the houses have never been allowed to deteriorate. Certain modifications have, of course, been required from time to time to adapt the dwellings to contemporary conditions, but almost all householders have had the good judgment to keep each house pretty much in its original form rather than attempt to "modernize" by the standards of modernity implied at a particular time.

From Harvard Square to its intersection with Mt. Auburn, Brattle Street is a mile and a half long. Unquestionably a ceremonial way, it yet has a certain informality, derived from several shifts of direction (caused, as we have seen, by the early path skirting the marshes) and some strategic intersections that occur at irregular intervals to create six nodal points: Brattle Square, Mason Street, Longfellow Park, Sparks Street, Fayerweather Street, and Fresh Pond Parkway. The first of these, at Brattle Square, is a disappointingly barren expanse surrounded by non-descript commercial construction of from one to three stories. Nevertheless, the pine tree and shrubbery recently set up in the middle of the great asphalt interchange show what planting can do. With the eventual construction of the Kennedy Library facing Eliot Square, this part of Cambridge will surely be built on a different scale.

The three-block stretch from Brattle Square to Mason Street is now preempted by commerce and educational institutions, dominated by the Design Research building of 1969, a glittering prismatic showcase, and its heavier-handed neighbor to the southeast. If chaos is to be averted, not every store in the area should attempt to be so independently exhilarating (Fig. 61). DR needs the stable forms and materials of the adjacent TAC building on Story Street as a foil. One regrets the loss of the side yard upon which the new building at 44 now stands, but the

62. DEXTER PRATT HOUSE, 54 BRATTLE ST., 1808

new covered walkway leading to interior courts and shops is greatly preferable to the continuous storefronts on lower Brattle Street. The recessed terrace at the east corner of Gutman Library provides a welcome relief from the same monotonous storefronts.

Fortunately a few old houses remain. They serve as historical reminders that fine dwellings once extended all the way east to Brattle Square and provide needed visual breaks in the line of commercial buildings. Such is the function of the old William Brattle mansion of 1727—whose owners provided this street with its name—but it is now squeezed between indifferent neighbors (Fig. 107). The Federal house of 1808 at 54 Brattle Street (until recently the Window Shop) has happily not been damaged by the addition of a modern showroom at the rear or the dining arbor in front; this house, with its tree-shaded yard, is an absolutely essential foil to overcrowding by buildings on either side (Fig. 62). Were the site of the Window Shop to be rebuilt with equal disregard for urban values, this part of Brattle would be visually destitute. The recent purchase of this building by the Cambridge Center for Adult Education, however, should assure its preservation.

The other important open space in this stretch is the large lawn at 76 Brattle Street (Fig. 196). The house, a somewhat barren, brick mansion of 1859, was originally covered with stucco, but its spacious grounds provide a welcome interlude between the massive bulks of Radcliffe Graduate and Loeb Drama Centers. Balancing this garden across the street is Radcliffe College Yard. Any of the red brick academic buildings here can be duplicated on many American campuses, but the two grey clapboard Federal houses at 69 and 77 Brattle Street impart an atmosphere so essentially of New England and Cambridge that no replacement, however imposing, could take their place (Fig. 63). Converted into college offices, these two houses recall the early suburban character of the street; the deep side yards by which they are entered are splendid transitional spaces between the academic seclusion of the quadrangle and the activity of Brattle Street.

The break between the institutional scale of the Radcliffe buildings and the next section of Brattle is clearly marked at the Ash-Mason Street intersection, where we find several buildings of exceptional architectural interest. Although there is variation in style and in material, each building at this intersection is important in its own way. On one corner stands the Stoughton house, one of H.H. Richardson's finest designs and an early statement of the Shingle style (Fig. 227). On the opposite corner, swathed in foliage, is the enchanting Tudor cottage of 1847 (Fig. 172), one of the few of its kind in this country, whose sharp gables and doll-house scale are the more noticeable in contrast to the towering apartment next door. Opposed to this wooden cottage are the bolder scale and institutional forms of the brick Radcliffe Graduate Center and the stone buildings of the Episcopal Theological School. The bland limestone surfaces and heavy, stepped mass of Sherrill Library (1966) screens the ETS quadrangle from Mason Street, but even this large building is subordinate to the warm-colored, pudding-stone chapel built a century earlier (Fig. 306), which in turn is set off by other seminary buildings grouped around the quadrangle (Fig. 308). Architecturally speaking, this intersection is probably the most interesting one in Cambridge.

Between Mason Street and Longfellow Park the impression conveyed is suburban on account of the generous front lawns. Seen from Brattle Street, even the ETS precinct appears spacious, because the dormitory buildings sit well back from the street and open around the quadrangle behind the chapel. Next door, the old Hastings house (1844) with broad pilasters and elegant iron balconies, is first of the series of stately mansions that line the north side of the street (Fig. 169). Opposite is the often-modified Henry Vassall house, which fills its lot in contrast to neighbors with spacious yards. The trim lawn and spartan planting at 92 Brattle preserve late 19th-century tastes in landscaping.

Longfellow Park, nucleus of one of Cambridge's four historic districts, creates an admirable setting for the city's most famous building, the Longfellow house (Fig. 116). The park is all that remains of the 45-acre meadow lying between the old mansion and the Charles River until the 1850's. By creating a clearly defined space at right angles to the movement along Brattle, the park serves to direct attention to the mansion. The axis of the park continues the walkway leading to

63. BRATTLE ST., EAST SIDE. AT LEFT: CHAMBERLIN HOUSE, 77 BRATTLE ST., 1821. AT RIGHT: PUTNAM HOUSE, 69 BRATTLE ST., 1838

the house; in the opposite direction the vista closed with trees suggests open country. The buildings that border the pleasant little park clarify its spatial composition admirably—this is particularly true of the Friends' property, where informal brick buildings define the park's western limit without losing domestic scale (Fig. 313). Since the meetinghouse sits well back from the road on line with the old Ernest Longfellow house next door, the sense of openness is augmented. The adjoining Friends Center juts forward toward the park and assists in closing its southern vista. The same kind of definition is performed by private houses on the eastern side, but the church on the corner of Brattle Street is decidedly too large for the lot and its bulk and awkward scale impinge upon the environment.

West of Longfellow Park, the term that perhaps best characterizes Brattle Street is informal dignity. Neither pretentious nor regimented, the houses vary greatly in size and in the way they are placed on their lots: sometimes close to the street and at right angles to it, but as often facing the street and with deep front lawns, the sequence of masses and open yards never predictable or monotonous. Well-maintained but not spectacular, the street here personifies in architectural terms the conservatism and individualism of its inhabitants.

Architecturally this stretch is interesting, too. The oldest house is 112 Brattle Street (1846), an excellent side-hall Greek Revival design considerably enlarged in the present century (Figs. 163-164). A group of four houses around a circle at 116-124 Brattle illustrates the scale of a 1905 subdivision and makes an instructive comparison with a similar undertaking of 1939 at 121-131. Two houses of Medieval inspiration at 126 and 128 Brattle Street (Fig. 265) are early works (1890, 1892) of Ralph Adams Cram, while two others, 113 and 115 (Fig. 247), adjacent to Longfellow's home, were built in 1887 for the poet's daughters. The latter especially offers an instructive comparison with the Longfellow house of 1759 and demonstrates the way American Queen Anne architects sought inspiration from, yet modified, Georgian prototypes.

The intersection of Sparks, Craigie, and Brattle Streets represents the third nodal point. In horse and buggy days a large watering trough standing at one end gave rise to the popular name "Wash Tub Square." To those going westward, this crossing is dominated by Holy Trinity Armenian Church (1960). Based on traditional Armenian medieval forms, the design is rather handsome, but the large scale and cold grey masonry isolate this building from its surroundings. The church and adjacent house (now used for church offices) occupy the site of the old Lechmere mansion (1761) which was moved to its present location at 149 Brattle Street and has been twice remodeled (Figs. 123-125). Diagonally opposite stands a pleasant Italianate double house (134-136 of 1857), similar to vernacular buildings in Cambridgeport, while directly across from the church two Georgian Revival houses (138-140) were built in 1939 on the site of a large Victorian house once situated in Gardiner Hubbard's Park.

For those moving in the contrary direction, however, the intersection is dominated by the Denman Ross house of 1869, the best-preserved Mansard house in the city (Figs. 190-191). Occupying a pivotal corner, with three formal elevations exposed to public view, the end of the mansion's triangular lot was recently presented to the city for a park, and at the same time preservation restrictions were placed on the building as the result of a voluntary agreement by past and present owners. To meet changing 20th-century conditions, two families now share the old mansion and a new dwelling has been built on the south lawn. Another corner house of this intersection, 27 Craigie Street (1854; Fig. 189), has an unusually good Italianate design by Henry Greenough.

The long stretch west of Sparks Street contains three tall, square Georgian houses which are the kind of building one probably recalls when thinking of Brattle Street. The house owned by the Cambridge Historical Society at 159 goes back in part to c. 1685, but its present exterior took shape in c. 1745 (Fig. 100). Number 175 dates to 1764; number 153 to 1803 (Fig. 127). Not much later (1810), though extensively remodeled in the 1890's, 163 Brattle is Federal in design. How faithfully an architect working in 1939 could reproduce 18th-century forms is demonstrated by 146 Brattle Street, its antique aura enhanced by the magnificent copper beeches in front (Fig. 136). It is partly to the large number of excellent revival houses like this and its neighbors that Brattle Street owes its popular image of a Colonial street.

Other noteworthy houses in this four-block stretch include somber Mansards of the 1860's at 164 and 162 and an ungainly Medieval house (1895) at 157. Numerous Queen Anne designs like 152 Brattle Street (1887), 160 (1884), and 168 (1888; Fig. 242) demonstrate the great variety possible within that style, while a comparison of 167 (1883; Fig. 239) and 158 (1884; Fig. 250) shows how quickly the Queen Anne penchant for the irregular and picturesque gave way to a preference for Renaissance orderliness. By 1893 Georgian rectitude left little room for personal experimentation as seen at 183 Brattle Street.

The Fayerweather-Elmwood intersection provides the fifth node, attention being called by the great width and diagonal axis of Elmwood Avenue, the original route to Watertown (Fig. 64). At this point the grandeur of the street begins to ebb as interest is divided between Elmwood Avenue and the western, narrowed prolongation of Brattle. Beyond the intersection, any sense of monumentality is

64. BRATTLE ST. INTERSECTION WITH FAYERWEATHER ST. AND ELMWOOD AVE.

curtailed by shallow front yards and the closer spacing of houses. Most structures here postdate 1900; though 199 Brattle Street was built as recently as 1966, it fits its location beautifully (Fig. 292).

Fresh Pond Parkway forms a final nodal point by means of dense planting and high walls on three corners and the open space of Lowell Park, which is all that remains of the Oliver-Gerry-Lowell estate that once contained 93 acres. The most interesting detail here is the serpentine brick wall that can frighten pedestrians by the way it reflects the sound of passing automobiles. Although there are several good residences west of the parkway, others are meager in scale and design and look like houses in thousands of postwar subdivisions all over the country. The final intersection of Brattle and Mt. Auburn Streets is marked by brick apartment houses and a glimpse of Mt. Auburn Cemetery just beyond.

The unity of Brattle Street derives from a continuity of scale and a feeling of controlled individualism rather than from consistency of architectural style. Except at the extremities, there are no stores or apartment buildings to break the scale, and the sequence of comfortable homes set in ample lawns is disturbed only twice by out-of-scale churches. The eye can move deliberately from building to building; most house units turn a conventional entrance facade to the street and each is large enough and varied enough in design to hold the attention. Yet there is no suggestion of ostentation or competitiveness between these houses as once there seems to have been along Massachusetts Avenue; (perhaps this is due to modern landscaping which partially shields one building from the next). Without display, there is nevertheless a sense of grandeur in moderation.

Brattle Street has a processional quality: slight changes of axis prevent the eye from taking in the street at a glance, yet the high arch of trees directs the eye and keeps attention from straying. The occasional walls or planting seldom deny the public a glimpse of the residences behind; despite the inconvenience and noise of traffic, it is as though a sense of civic responsibility induced the householders to gratify the public with discreet vistas of well-kept houses and lawns.

Streets Lying South of Brattle Street

Brattle Street forms what might be described as a rather crooked spine off which branch a number of long, lateral streets that have few interconnections. To move in an east-west direction, one must use either Brattle or one of the perimeter routes, Mt. Auburn or Huron Avenue. On a map these lateral streets suggest similar environmental character with one another, but they are, in fact, very different. By and large the area lying on the slope of Reservoir Hill (on the north side of Brattle) has finer residences than does the low-lying section to the south, although great variation exists on the cross streets between Brattle and Mt. Auburn. Here, on higher ground at Ash, Hawthorn, and Lowell Streets, somewhat better houses were originally built, while low-lying streets like Sparks and Willard contained more modest ones. Within a given block quality may also vary: expensive places at the Brattle Street end contrasting with workers' quarters near Mt. Auburn. This, at least, was the 19th-century pattern of development. In

65. THOMAS BRATTLE ESTATE

recent years proper drainage has made even the lowest elevations habitable, while the modern demand for small houses has resulted in the upgrading of many formerly modest streets.

The Tory estates that lined Brattle Street for so long tended to hedge in Old Cambridge and keep it from spreading westward (Fig. 5). Closest to the center of town but actually more a collection of parcels rather than a conventional estate was the property of Thomas Brattle (Fig. 65). Extending from Brattle Street to the river and from Eliot Square to Ash Street, this estate of 22 acres had been put together from eight early properties. Upon the Colonel's death in 1801, the property was divided and by 1833 eight buildings (including the Brattle mansion) stood within its former limits (Fig. 6). Mt. Auburn Street was cut through in 1803, but the earliest structure there is the cottage of 1839 at 145 Most building activity took place on lots north of Mt. Auburn Street; land south of the street attracted builders more slowly, although between 1848 and 1869 an enclave of small houses appeared near Gerry and Revere Streets. The miniature scale of the houses, yards, and streets here is more suggestive of Marblehead than of an industrial-commercial section of Cambridge (Fig. 66). (The area has recently benefited from the demolition of the sprawling one-story garage fronting Mt. Auburn and of the old University Press.) These streets are so isolated from the flow of modern traffic that probably few people know of their existence.

The section of Mt. Auburn near Brattle Square has so long consisted of carbarns, garages, and scruffy apartments that it is surprising to discover it was once a neighborhood of elegant homes. The temple-fronted Chapman mansion (1838; Fig. 154) stood on Eliot Square (the present site of the remodeled Coolidge Bank) and in 1847 Samuel Batchelder built a picturesque Gothic cottage on the

66. GERRY ST., NORTH SIDE

68. HILLIARD ST. LOOKING WEST

of present Mifflin Place (Fig. 176). Facing it from the corner of Nutting Place was the Whitney mansion, later used as the Peabody Club. A lone survivor of the group of sedate houses is the broad-pilastered Greek Revival house by William Hovey (1846) at 127 Mt. Auburn Street, now crowned with a later mansard roof and crowded upon by neighboring apartments. West of this, occupying the four corners of Mt. Auburn and Ash Streets, is an exceptionally fine selection of four Bracketed houses.

When these pleasant places were built, the riverfront was still unimproved salt marsh, although after mid-century the land began to be put to use. The Cambridge Gas Company (with attendant coal wharf and gasometer) was built on Windmill Hill in 1852, while livery and horsecar stables stood on the land now occupied by the MBTA yards (Fig. 67). The University Press, which had begun

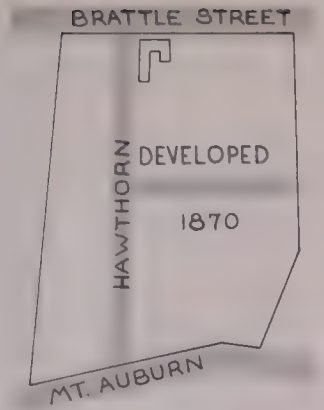
67. AERIAL VIEW OF RIVERFRONT IN C. 1900.
FOREGROUND: MBTA YARDS. CENTER: THE UNIVERSITY PRESS (1849) AND CAMBRIDGE GAS COMPANY (1852). BOTH DEMOLISHED

operation in the defunct hotel on Brattle Square, built a new plant in 1895 at the south end of University Place; this stood until 1970 and may now be replaced by a high-rise motel or apartment. Finally, a combined police-fire station was built in 1874 on the present site of the Treadway Motor Inn (Fig. 317). Such development was hardly congenial to well-to-do householders, who soon moved to more suitable locations further away. Reconstruction of the riverfront as a desirable residential district did not begin until the 1892 planning of Charles River Road (earlier called Cambridge Parkway, later changed to Memorial Drive) and the 1910 completion of the Charles River tidal dam. The famous London plane trees were planted about 1900, and the line of handsome apartments was erected immediately before and after the First World War. The construction of the monastery of the Cowley Fathers provided Cambridge with its most exquisite ecclesiastical structure (Fig. 310).

Within the old Brattle estate, two other streets were laid out by 1854. Story Street lost what buildings of interest it had when the TAC and DR buildings were erected in 1967-69 (Fig. 61), although this new construction establishes a good standard for future commercial building. Hilliard Street, in contrast, keeps a residential quality despite bumper-to-bumper parking and less than mediocre apartment buildings at both ends of the street. This quality pervades the street because it is narrow, traffic is forced to move slowly, and trees fill the space of the street corridor and mask differences in building scale and style (Fig. 68). No new apartment houses could be added here without entirely destroying the character of the street. A Mansard dwelling on a large lot and a large Queen Anne house on a small lot are of architectural interest, while row houses at 12-20 Hilliard Street (built 1911) crowd onto the site of an early wooden schoolhouse of 1870, thereby supporting the axiom that the later in date a residential development, the more intense the land use. Hilliard Place with all its quiet, small-town feeling, might be in Rockport.

Ash Street—the approximate line of the 1632 Pallysadoe as well as the western boundary of the Brattle estate—originated as the path to the windmill (Figs. 3-4), later it led to the Harvard bathhouse (1800) on the river. The street has

69. ASH ST. PL.



70. HENRY VASSALL ESTATE

unusual architectural interest: two of its buildings are widely known: Philip Johnson's residence (1941) at 9 and Richardson's Stoughton house at the Brattle Street corner (Fig. 227). Despite the designer's renown, one is forced to observe of the Johnson house that it displays an arrogant disregard for its environment; fortunately for Cambridge other modern architects have found ways to achieve privacy without flouting the surroundings. Some houses in this short street date from the 1850's and 60's and are well related in scale, among these is the noteworthy corner house at 153 Mt. Auburn Street, whose original architectural detail was carefully retained when the property was converted in 1965 into three apartments (Fig. 184). The house at 19 Ash Street (1824) was moved to this site in 1858 from 76 Brattle Street, another location within the original limits of the Brattle estate. The secluded and almost sylvan feeling of Ash Street Place is nothing less than astonishing when one realizes that it is within five minutes' walk from Harvard Square (Fig. 69). Such an unexpected cul-de-sac in the heart of big, irregular master blocks is the sort of thing that makes Old Cambridge so appealing.

Although a section of the Henry Vassall mansion at 94 Brattle Street is one of the oldest fabrics in Cambridge, the estate itself was the smallest on Tory Row, only 9 acres in extent and bounded by Brattle and Ash Streets, a line midway between Hawthorn Street and Longfellow Park, and a line about where Mt. Auburn Street now runs (Fig. 70). It was not confiscated during the Revolution because it was heavily mortgaged to a patriot. Most of the estate was acquired in 1841 by Samuel Batchelder, who kept the land intact until 1870 despite its proximity to Harvard Square; he then laid out Acacia and Hawthorn Streets. Hawthorn Street has reasonable harmony despite variations in architecture. Fairly large houses of the 1890's stand next to small residences of the 1930's, and a stucco apartment of 1911 is considerately designed with its main mass at the rear of the lot (overlooking Longfellow Park) so that its bulk does not destroy the scale of the street. There is even a three-decker, so hidden in the interior of the block that it does not detract from its neighbors. Houses moved here recently from locations on Brattle Street include a chaste Federal house, 11 (built in 1813 at 45 Brattle) and at 15 a bulky Colonial Revival house (1896) which once stood at the corner of Longfellow Park.

71. JOHN VASSALL ESTATE

The John Vassall estate of some 87 acres was the largest on Tory Row (Fig. 71). Assembled from approximately ten West End Lots acquired up to the eve of the Revolution, Vassall's holdings were then confiscated. Andrew Craigie, the next prominent owner, purchased more land until the whole property comprised 110 acres—at one time Craigie also owned two adjoining properties, the Henry Vassall and Richard Lechmere estates. Despite financial embarrassments in Craigie's later years, the estate was kept together and eventually divided between his widow, a niece, and two nephews. The more important divisions are indicated on the map, and the development of the north half of the estate is described later in this section.

Of immediate interest is the 45-acre meadow lying south of Brattle Street, most of which was bought in 1849 by Gardiner Hubbard for $1000 an acre from Samuel Foster, Craigie's nephew. Although immediately platted into sixty-seven lots of fairly uniform size, the development from the beginning fell into two distinct parts: one section on high ground fronting Brattle Street, the other on low land toward the river. The core of the more modest district was Foster Street, where real-estate activity was initially brisk. Forty-two lots were sold by 1853, including the entire block bounded by Willard, Mt. Auburn, Sparks and Foster Streets. This portion (known as the Marsh) soon became a warren of cul-de-sacs and block-long streets with closely built, modest houses. Some of these represent the minimal single-family dwelling of the first six decades of the 19th century; a number are of the two-room center-hall type identified in East Cambridge and Cambridgeport as workers' cottages. The early occupants worked in coalyards, livery stables, and wharfs or in domestic employment with families

residing on Brattle Street. Later sheathed in asbestos shingles and subdivided into even smaller living units, these houses in recent years have been much sought after because of their small scale and quiet, convenient situations. Particularly successful and imaginative rehabilitation has been carried out on Camden Place, while on Sparks Court derelict concrete garages were converted into the most contemporary of residences (Fig. 295).

Some land along Mt. Auburn Street was so low that it could not be used before the city in 1852 began systematically to build a sewer system. Unsightly garages and a laundry were put up at the corner of Sparks and Mt. Auburn Streets (1915), but in 1963 they were replaced by Bradbury Park and the handsome Riverview apartment at 221 Mt. Auburn Street. Parking for that apartment and another at 22-28 Bradbury has been provided with the utmost consideration for the visual environment. On another dilapidated parcel, Shaler Lane was built in 1926. The site of Harvard's old Stillman Infirmary, overlooking the river, now contains a twenty-one-story luxury apartment at 1010 Memorial Drive (1965). The low, boggy corner of Willard Street was early converted into a skating rink and the charming Scandinavian clubhouse of the Cambridge Ice Skating Club was constructed in 1930.

Willard Street, near the creek bed of old Lost Brook, is lined with attractive residences as far as Foster Street. Built as moderately priced dwellings, most of those have been recently enlarged and effectively landscaped. The houses on Brown Street are also basically simple structures, which have been ingeniously restored and sometimes substantially enlarged. A three-story, gambrel-roofed apartment at 17 Brown Street is the Aaron Hill house of 1754, moved to this site in 1867 and jacked up to allow for the present first story. Because of trees and the manner in which the houses fringe the sidewalks, one is reminded of an inland town such as one finds in southern New Hampshire (Fig. 72). This village-like quality is augmented by the large, densely planted front yard at 14 and by the mingling of large and small dwellings on the same street.

Sparks Street is architecturally uneven as well as plagued by traffic. A handful of commonplace apartments causes the larger houses to hold aloof from the street and turn toward their more elegant neighbors on Mercer Circle or Hubbard Park. Near the Foster Street intersection, however, four simple workers' cottages have been admirably remodeled. Situated on higher ground, Lowell Street was built

72. BROWN ST. LOOKING NORTH

73. GARDINER HUBBARD HOUSE, 146 BRATTLE ST., 1850. MELVIN & YOUNG. DEMOLISHED 1939

74. PLAN OF MERCER CIRCLE AND HUBBARD PARK, 1889. (LAID OUT BY 1907)

up piecemeal, with larger houses than on Foster or Sparks Streets; the oldest house, 19, was built in 1849 by George Foster, nephew of Andrew Craigie. The Lowell Street School probably looks less institutional than any other school in the city. Built of wood in 1883, it fits so well into this residential street that one is hardly aware of it.

Facing Brattle Street, Gardiner Hubbard reserved a 6-acre park for his mansion built in 1850. Around the periphery of this park he eventually (after 1886) had leading architects of the day design a ring of fine houses connected by a sweeping driveway which gave the grounds a dignified unity and carefully screened off the poorer neighborhood south of Foster Street. Although his mansion, 146 Brattle Street (Fig. 73), was demolished in 1939, its grounds survive as Hubbard Park, laid out in present form by 1907 (Fig. 74). The unusual thing about the

Hubbard development is that neither the expensive nor the modest portion was exploited with the aggressive rapidity of most real-estate promotion. Hubbard seemed to keep the property as a kind of plaything, with a limited amount of development underway, even after his removal to Washington, D.C. in 1879. A civic-minded, progressive citizen, he was responsible for many important local improvements, among them the Cambridge Gas Company on Windmill Hill in 1852, the promotion of the waterworks between 1852 and 1865, and the financing in 1856 of the first horsecar company in Boston—that which ran the line to Harvard Square. Hubbard was later associated with his son-in-law, Alexander Graham Bell, in setting up the nation's first telephone company; another interest was the founding of the National Geographic Society.

Westward and southward of the Vassall-Craigie-Hubbard land lay fields belonging to the Lee estate; these passed through several hands and long remained vacant. The 2-acre meadow behind 168 Brattle Street, long known as the Grozier estate, recalls this leisurely development. Channing Street was not laid out until 1871. The clump of two-family houses on Longfellow Road occupy the former site of an orphanage, the Avon Home, built in 1891, closed in 1913, and burned in 1918; the crowded scale here bespeaks their late date (1923). Across Mt. Auburn Street, atop the low rise early known as Simon's hill, the first units of Mt. Auburn Hospital were erected in 1884 (Fig. 327).

To the west lay Elmwood mansion and the 8¾ acres south of Brattle Street acquired by Charles Lowell in 1817 (Figs. 134, 86). His heirs did not subdivide the land until 1892, when Traill Street (from the family name of a grandmother) was laid out. Here as on Channing Street comfortable houses began to be built, many of them shingle-clad; after World War I, the remaining lots near Mt. Auburn Street were taken up by two-family houses. A large house at 5 Channing Street was demolished in 1930 to make way for three small residences.

The area has also had its share of house-moving. The Rice house (1850) now at 7 Lowell Street once faced Brattle Street, a valuable site yielded in 1884 to two extremely fine Queen Anne designs, numbers 158 (Fig. 250) and 160 Brattle. Across the street from Elmwood the mid-18th century Watson house from Russell Street in North Cambridge was reconstructed in 1965 (Fig. 129). The most recent arrival in this vicinity is 170 Brattle Street, built in 1852 at 2 Phillips Place (the present site of the Sherrill Library) and moved here in 1967 (Fig. 170).

Streets Lying North of Brattle Street

The early topographical development of the two sides of Brattle Street east of the Mason-Ash Street intersection differed considerably. As we have seen, growth of the southern part was also impeded from being long held as part of the Brattle estate, while adjoining land was broken into house lots beginning in 1634, as the unsystematic pattern of streets bears witness. In contrast to eight buildings on what had been Brattle land, there already were by 1833 twenty-six in the area northwest of Brattle and Church Streets (excluding buildings facing Brattle and Harvard Squares; Fig. 6).

Of the twenty-six pre-1833 structures, fourteen remain today, most of them moved from their first locations. Still on their original sites are the Unitarian and Episcopal churches (Figs. 302, 301), Christ Church rectory (Fig. 149), and two houses in Radcliffe Yard: 77 Brattle Street and the much altered Fay house (Figs. 137-138). Two other houses remain, although moved to new locations on Farwell Place to make room for the Gutman library: the Read house (1772) formerly at 55 Brattle (Fig. 115) and the Nichols house (1828) formerly at 63. In other parts of Old Cambridge are seven houses erected in this area but since moved; they include: 11 Hawthorn Street (1813, from 45 Brattle), 38 Bradbury Street (1821, from 75 Brattle), 13 St. John's Road (1820, from 14 Appian Way), 8 Willard Street (before 1765, from 83 Brattle; Fig. 132), 17 Brown Street (1754, from 99 Brattle), 144 Coolidge Hill (1801, from 15 Appian Way; Fig. 150). (The pre-1833 houses erected on Brattle land have been mentioned earlier.)

Harvard University is greatly to be commended for the effort and expense of saving the Read and Nichols houses. The pleasant grouping and human scale of these historic buildings in their new setting behind the library will surely be enjoyed by subsequent generations. For this and for other reasons already given, it is very much to be hoped that the two Radcliffe houses on Brattle Street, 77 and 69 (1838) as well, will be preserved *in situ*.

Characteristic of Old Cambridge is the way much of it is divided into large islands of land not intersected by cross streets though penetrated by a number of cul-de-sacs, by this means providing numerous building sites on quiet streets within the heart of a block. These islands are often wooded and have an almost rural environment; their irregular and unpredictable shapes enhance the variety and individuality of the neighborhood.

One such master block is bounded by Mason, Brattle, Craigie, and Berkeley Streets and Phillips Place. Nineteen acres in extent, this tract was long owned in two parcels: a larger western section belonging to the Vassall-Craigie estate from 1747 to 1843, and a smaller 4½-acre eastern portion owned by the Hill family for an even longer period, 1713-1867. Parcels of Hill property were sold off from time to time, including land on which were built the Shepard Congregational Church of 1870 and Episcopal Theological School; and Willard Phillips, who married a Hill, laid out Phillips Place and the east end of Berkeley Street in 1851. The larger part of the master block belonged to the Vassall-Craigie estate. Following Craigie's death in 1819, the estate was eventually divided in the manner shown in Figure 71. (Disposition of sections lying south of Brattle Street and north of Concord Avenue were discussed earlier in this section.) What remained was sold in three large parcels in 1843 after the death of Madame Craigie. Oliver Hastings purchased 4 acres for his handsome residence at 101 Brattle Street; Nathan Appleton acquired the old mansion and 5 acres (plus an 8-acre meadow south of Brattle Street) for his daughter, Mrs. Longfellow; and J.C. Worcester acquired the remaining 37 acres, including the pond whose location can still be identified by the declivity in the lawn east of his house at 121 Brattle Street. Within nine years (by 1852) Professor Worcester laid out Craigie and parts of Berkeley and Buckingham Streets and began selling sites for expensive houses.

75. 4 BERKELEY ST., 1851

76. BUCKINGHAM ST. LOOKING NORTH

Despite the fact of its being laid out by different owners, Berkeley Street has a splendid urban unity and contains the best concentration of Bracketed and Mansard houses in the city, with textbook examples at 4 (Fig. 75), 5, 20, and 22. Of the street's eighteen houses, twelve date from between 1852 and 1873. The few Queen Anne houses erected later in large side yards are in keeping with the mass and siting of the earlier work; so is the extremely well-designed stucco house (1905) at 16 (Fig. 254). Two houses, 12 and 15 (Fig. 177), have sustained unfortunate changes in exterior wall surfacing, but they preserve much original trim. Berkeley Place, which provided ingress to the back field of the Worcester home lot, was platted for building sites in 1890. The oldest houses date from 1892, the last from 1940; most are constructed of wood and fit together harmoniously. Unquestionably these two streets should be constituted an historic district.

Even though apartment houses have intruded around Craigie Circle, preservation of Craigie Street is almost as important as that of Berkeley. Largely built up by 1873, the street for the most part consists of Mansard designs of which 14, 15, 23 (Fig. 198), and especially 26 (Figs. 190-191) are good specimens. Two Italianate houses at 25 and 27 (Figs. 171, 189) are also of prime importance. The recent (1967) kindergarten building of the Buckingham School, a contemporary structure, is so well scaled and landscaped that it does not disturb the 19th-century air of the street (Fig. 325). On this part of the Worcester property (Craigie, Berkeley, Berkeley Place) and on the side yard of the main house no less than forty-two houses and three large apartments have been erected.

Worcester land extended to Sparks Street and to the ridge that runs between Observatory and Reservoir Hills. Access to this portion of the property was provided by the laying out of Buckingham Street in 1856. The first two houses here were constructed in 1862 (13 and 19), good Mansard designs, although the roof of the former has been changed. The rest of the street was less quickly or uniformly filled than was Craigie; late arrivals include a nice Queen Anne house of moderate size at 50 and the Koch house (4) of 1937, the most important early modern house in Cambridge (Fig. 283). Differences in elevation and depth of front yards, plus two bends in the long street as it climbs the ridge, give great variety and visual interest (Fig. 76). Although Parker and Healey Streets also occupy Worcester land and were plotted as early as 1873, they built up very slowly because of their swampy soil; by 1886 only four buildings stood on Parker, none on Healey Street.

Strikingly different in character from what we have just seen is the enclave of modest dwellings that once faced Concord Avenue and clustered around St. Peter's Roman Catholic Church (Fig. 77). This neighborhood lay just outside the Vassall-Craigie-Worcester property, its chain of ownership traceable to a house lot issued to William Man in 1634. Developed about 1847, this group represented the first attempt to leap beyond the blockade created by Craigie land. Today all but three of the eleven small houses indicated on the Walling 1854 map have been removed to make way for stores, the expansion of the Deane residence in the 1860's, or the parochial school built in 1927; the church was begun in 1849. (The street name is derived from the Reverend Manassas Dougherty, founder and first priest of the parish.)

77. WALLING MAP OF CAMBRIDGE, 1854. DETAIL SHOWING AREA AROUND ST. PETER'S CHURCH

The term Reservoir Hill in this report refers to the long ridge that lies midway between Brattle Street and Huron Avenue and extends from Sparks Street to Lake View Avenue. Its highest point, the corner of Reservoir and Highland Streets, was the site of the first city reservoir (1855-1901). The ridge marked the limit of house-building oriented to Brattle Street; by and large, the north slopes of the hill were not occupied by houses until after the coming of the trolley line along Huron Avenue in 1894. Water for the reservoir was pumped from Fresh Pond seventy-three feet below.

The slopes of this ridge were the location of four of the seven Old Cambridge Tory estates. Although varying in size, all four properties were similar in shape: long, narrow parcels extending from Brattle Street all the way back to Vassall Lane or the Fresh Pond. The Fayerweather estate, for example, had a frontage of about 650 feet on Brattle, a depth of almost half a mile. In the mid-19th century the estates were subdivided independently, and each property was laid out with its own road system related only to Brattle Street. Moreover, these new roads had to be laid with regard for the old mansion house, which occupied a good portion of the Brattle Street frontage. Thus a peculiar street pattern was imposed, consisting of long north-south streets with very few cross connections.

Sparks, the first street that runs north from Brattle Street and over the ridge, is much older than the others and has always been a boundary. It was the dividing line between Cambridge and Watertown until 1754 and one limit of the town's West End lots laid out in 1634, a separation that persisted in the division between the Vassall and Lechmere estates. Sparks Street was also the principal way to the Fresh Pond from the West End. Extending one-third mile without a full intersection, Sparks Street today is bordered by stretches of trees and by one very deep front yard; such surroundings almost give it the appearance of a country road, a feeling that is particularly strong when one looks north up the hill to where a bend screens prosaic Wyman Square from view (Fig. 78).

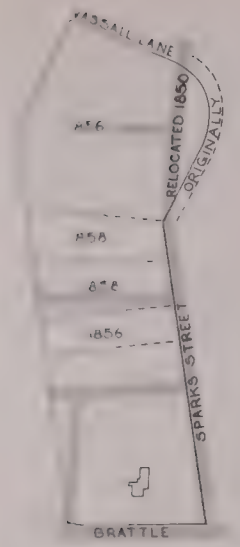
At the lower end on the Brewster Street corner a row of four brick houses (1875), known as the Brewster Block, seems especially tall and stiff because of this quasi-rural setting (Fig. 212). Other residences along Sparks Street convey the impression of aloofness and turn to side or to rear gardens, while a few have indifferently placed their garages directly on the street. Sparks Street lacks the dignified display of Brattle Street or the hospitable succession of front porches and wide drives of Appleton Street. However, three interesting cul-de-sacs open off Sparks: Clement Circle, Wyman and Hemlock Roads. The first goes back to before World War I, the second to between the wars, the third to after the last war. House size, architectural style, and the way the houses are sited and the degree of privacy provided by the planting—all provide a good visual summary of changes in suburban building over a sixty-year period (Figs. 79-81).

78. SPARKS ST. LOOKING NORTH

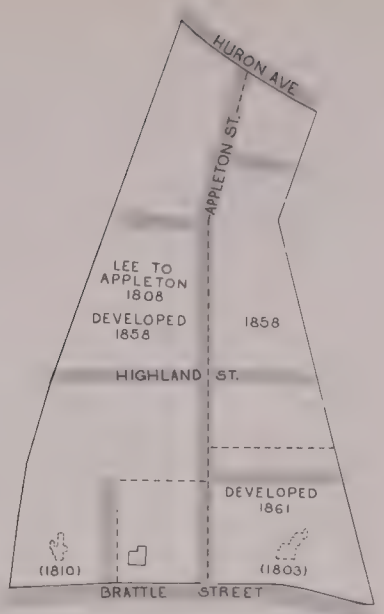
79. CLEMENT CIRCLE

80. WYMAN RD.

81. HEMLOCK RD.



82. LECHMERE ESTATE



83. LEE ESTATE

Fewer topographical reminders survive of the 13-acre Lechmere estate (Fig. 82). The old Lechmere mansion remains, moved to a new location at 149 Brattle Street and twice remodeled with unusual thoroughness (1869 and 1887; Figs. 123-125). Since the estate was accessible from three existing roads, it was not necessary to create a new street down the center when the subdivision of 1845 took place; instead, the property was broken into thirds. The 7-acre northern parcel acquired by Dr. Morrill Wyman is still recalled by heavy woods, even though two cul-de-sacs, Wyman and Hemlock Roads, have been cut into it. Here the old boundary line between the Lechmere estate and its neighbor to the west is indicated by two details: the abrupt change in architectural character at Appleton Road (which extends right up to the old property line) and the crook in Highland Street (which was not laid across Lechmere land until 1887). The south third of the estate was purchased by John Brewster in 1845; after acquiring additional acreage from the Lee estate, he and his son William laid out two streets in 1887, Brewster and Riedesel, and built houses of differing sizes, of which John Brewster's were kept for renting. William Brewster moved the early mansion in order to secure a prominent location for his own house at 145 Brattle Street (now used as the parish house for the Armenian church; Fig. 271). In the early days a significant feature of the neighborhood was the large Brewster woods at the corner of Sparks Street, which was made famous by William Brewster's book *Birds of the Cambridge Region*.

A 28-acre estate lay behind Judge Lee's venerable three-story mansion at 159 Brattle Street, today the home of the Cambridge Historical Society (Fig. 100). Although this estate was wide enough to have permitted a more flexible arrangement of streets, the present single roadway was determined by limited access to the property from Brattle Street (Fig. 83). This was so because, in addition to the original mansion, two large house lots had been set aside in the early 19th century: one for Thomas Lee's house at 153 Brattle Street (1803), the other for 163, built in 1810. Furthermore a division by Lee heirs cut the estate into two long, thin parcels, the western half of which was acquired by John Appleton in 1808, the eastern half kept by Lee descendants, the Carpenters. The dividing line between these two properties determined the course of Appleton Street.

Appleton Street's high degree of unity results from the fact that William Read bought large plots of land in 1859 and 1861 on both sides of the road at the crest of the hill, where he and his son built mansions (88 and 89 Appleton Street; Fig. 202). The remainder of the Carpenter property was eventually acquired by John Brewster, who developed what was nearest Brattle Street along with his portion of the Lechmere estate; the large field on the north slope of the hill was, however, so inaccessible that it remained vacant until after Huron Avenue was cut through. Only when the trolley line was constructed on that street in 1894 did that slope begin to be built up; yet it was really the boom after the 1914-1918 war that brought the avalanche of dense and rather monotonous two-family dwellings.

The architectural character of Appleton Street is one of informal dignity (Fig. 84). One looks from under a canopy of shade trees lining the street into yards that are not screened off by hedges or walls. Near the bottom of the hill stolid shingle houses are amply spaced; the intersection with Highland Street checks one's attention as the eye sweeps toward the summit of the hill. The crest is capped by unusually ample yards and by some of the largest copper beech trees in the city. The marked change of architectural quality on the northern slope is, however, screened from view by that crest and by a slight deflection in the street axis so that the pedestrian character of buildings there do not impinge on their more aristocratic neighbors. Dunstable Road, a pleasant cul-de-sac of medium-sized houses on small lots laid out in 1922, forms a line of demarcation as well as a transitional link between the different scales of the two parts.

84. APPLETON ST. LOOKING NORTH

The Fayerweather-Reservoir neighborhood was made out of the Fayerweather estate, a 45-acre tract (Fig. 85). This property had been put together in 1746 by Amos Marrett from three small Watertown farms, but the mansion at 175 Brattle Street was not built until 1764 for George Ruggles. On the eve of the Revolution, the place was sold to Thomas Fayerweather and again in 1827 to the Wells family, who continued to live in the mansion until 1907 although they soon sold most of the acreage to William Stearns. It was Stearns who laid out the two streets and began to sell lots in 1847, concluding with an auction in 1852. Since the Wellses had reserved a generous plot around the mansion there was space to extend only one of the new streets through to Brattle. Later Channing Place was laid out on the Wells house lot. Meanwhile, land at the other end of the estate, including several claypits between Huron Avenue and Vassall Lane, remained empty until the postwar building boom just mentioned.

Houses at the south end of Fayerweather Street are as commodious as any in Cambridge. Since the lots on the west side of the street are rather shallow, several houses face large side yards, with the result that the street here presents an interesting sequence of end gables. One of the finest of these—with its formal elevation facing the garden on the south and skilfully related to its site—is 55 Fayerweather Street at the corner of Gurney. Another, a large Colonial Revival house (important also for its early date, 1882), occupies the strategic corner at 28 Fayerweather (Fig. 243). Across the street, a contemporary house of wood (1968) is almost as gargantuan as the N.C. Nash (later John Marquand) house that preceded it; the large corner garden with its novel berm conveys the feeling that the corner is still vacant. The combination of textured antique brick with International-style architecture in 45 Fayerweather Street (1940) is unusual (Fig. 285). An unfortunate Mansard house at 31 lost its mansard roof in an attempt at "modernization" in the early fifties, a decision that probably would not be repeated today. More appropriate subjects for such drastic endeavor would be one of the nondescript two-family houses further down the north slope, several of which have been imaginatively redesigned since 1968.

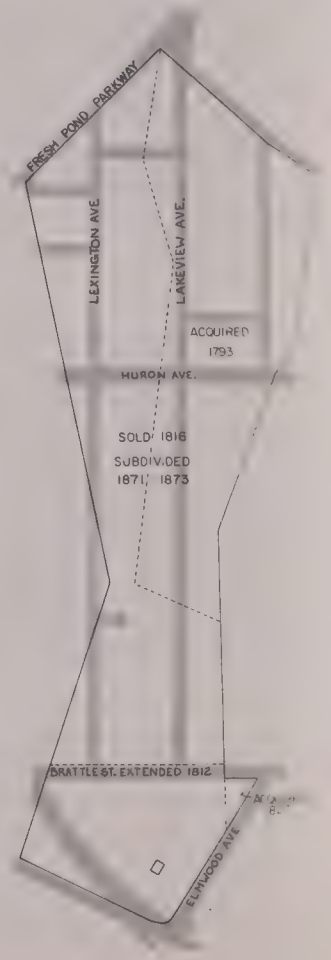
Reservoir Street is richer in architectural variety than in visual unity. One hilltop corner contains three spacious contemporary houses which occupy the site of an enormous turn-of-the-century mansion built upon the site of the original water reservoir. The empty foundation of the mansion still survives, part of it made into an interesting sunken garden for one of the present houses. An anomaly is 29 Reservoir Street, with service wing amputated at a curious angle; constructed in 1869 at the northeast corner of Fayerweather Street, this building was later moved to its present location where it was grafted on to the dwelling at 25 Reservoir by a strange enclosed gangway as well as a bridge between the service wings. (The combined dwellings were needed by E.W. Hooper, whose family included seven daughters. In 1902, when one house was sold to Samuel A. Eliot, the wall was cut out to correspond to the new property line.)

The upper stretch of Highland Street (originally called High) was begun by 1860, put through to Appleton in 1870, but not opened as far as Sparks until 1887. Almost every house in this street is a representative piece of architecture. Here one gets a fine contrast between the rather angular, prismatic work of the 1870's (as at 45 and 51, built in 1872 and 1873); the rounder, more picturesque work of the eighties (17; 1888); and the rectangular, more controlled work of the late nineties (11; 1891). Of particular interest are two splendid Colonial Revival houses: 1 (1894; Fig. 249) and 54 (1886). Two Shingle style houses on the street have fared less well: one had its face lifted in an attempt to become a Norman chateau and the other was scalped.

Further west of the Tory estates is Elmwood, the home of Thomas Oliver and later of James Russell Lowell (Fig. 134). Confiscated from its Tory owner, it was foreclosed in 1817 by creditors of Elbridge Gerry, and the mansion and surrounding land eventually went to the Lowell family (Fig. 86). Just before this, in 1812, the section of Brattle Street between Elmwood Avenue and Mt. Auburn

85. FAYERWEATHER ESTATE

86. ELMWOOD ESTATE AND DATES OF SUBDIVISION



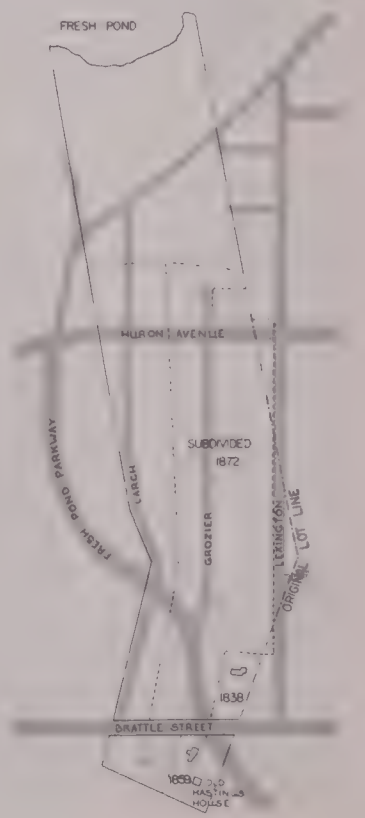
Street had been cut through. Most of the acreage was purchased by Joshua Coolidge. His son, Josiah, built a large farmhouse at 12 Lake View Avenue (1846) and cultivated the land until 1870 when he sold the property for real-estate subdivision. Although the 48-acre Coolidge farm extended north for half a mile to the Fresh Pond, the speculators laid out the whole with a uniform grid of 116 lots. The wider spacing of the streets and the addition of three streets at the north end where the property was widest indicate the scale of this subdivision. One of the three new northern streets was Huron, the first section of this important artery to be laid out, but it was some years before adjacent property-owners realized the possibilities of such a street in connection with the growth of Reservoir Hill's north slope, because Huron Avenue was not cut through to Concord Avenue until 1889.

When the Coolidge farm subdivision was put on the market, lots were sold slowly, despite the access provided by the Brattle Street horsecar line; there were simply too many desirable building sites available closer to Harvard Square. As late as 1886 only eighteen houses had been built on Lake View Avenue, most of them Mansard designs, which are a little meagre when compared to contemporary work in other parts of Reservoir or Avon Hill. On the other hand, Lake View does not suffer from the abrupt change in architectural character that mars the northern ends of the three other streets on the hill; this came about because the lots were early sold to persons who erected dwellings individually over a period of years. Especially noteworthy is the large stucco house at 117 Lake View Avenue (1910), set in unusually ample grounds, and the interesting variety of early double and two-family houses dating from the early 1900's; the latter are much more ample and varied in design than the uniform two-family structures built by speculators elsewhere in this district. Although Lexington Avenue was part of the same subdivision, it was bought by a speculator who held the land until about 1910, when it was filled with two-family houses on the west side and mostly with apartments on the east side. Of the latter one is a gem, the "Lowell" of 1900, the most extraordinary double four-decker in the entire city.

Larchwood and Coolidge Hill

West of the Tory estates in the 18th century were smaller farms and simpler houses, as one can see from the Ebenezer Wyeth house that remains in a much altered state at 36 Larch Road. Although some land in this region was acquired in 1808 by the rich Salem merchant William Gray for a summer residence, most of it remained agricultural until the last quarter of the 19th century, and the area was still too far from the center to warrant intensive development before World War I. In this peripheral area, Grozier and Larch Roads take up most of what was once John Hasting's (later Jonas Wyeth's) 40-acre farm (Fig. 87). (Jonas Wyeth's farmhouse of 1838 still stands, unrecognizable after two substantial enlargements, at 17 Fresh Pond Parkway.) The farm extended as far south as Mt. Auburn Street until Brattle cut across it in 1812; the configuration of the area was further changed in 1899 when Fresh Pond Parkway was constructed. Laid out on the old Stratton farm was an 18th-century lane that led from Mt. Auburn to the Fresh Pond, today in part recalled in modern Fresh Pond Lane. On Grozier Road and on most of Larch, the only relief from uniform rows of two-family dwellings erected in the 1920's is the playground of the Russell School.

The last large parcel of land on Brattle Street was The Larches, the 38-acre summer estate of the William Gray family. In the early 18th century this property had been part of the Stratton farm, although before the Revolution part was acquired by the Wyeths and a portion was annexed to Elmwood by Thomas Oliver. The two portions were next owned by Hastings and Gerry, then acquired by Gray apparently through foreclosures in 1808 and 1810, a period of severe economic depression. This was the last property on Brattle Street established as a traditional country seat with a manor house surrounded by ornamental gardens and meadows. As late as the forties citizens like C. E. Worcester



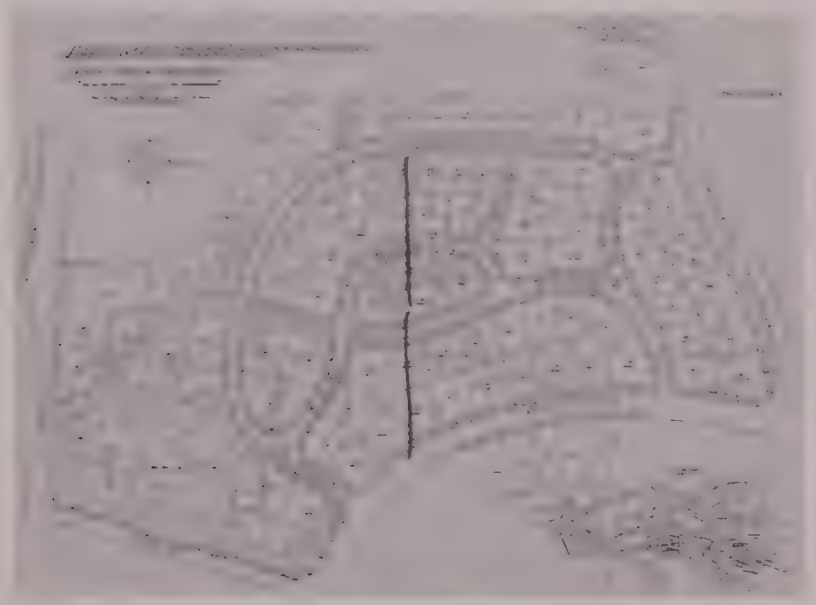
87. WYETH AND GRAY PROPERTY

and Gardiner Hubbard might acquire comparable amounts of land on which to build themselves large homes, but their actions were accompanied by a certain amount of peripheral subdivision. Formed at about the same time as the Gray estate were the two Coolidge farms on Lake View Avenue and Coolidge Hill, but both of these seem to have been run as working farms.

The large Gray house was erected in 1808 and John Chipman Gray later built extensive gardens and hothouses (Fig. 143). When the estate was subdivided by heirs in 1915, the house was moved from its original site facing Brattle Street to its present location on Larch Road, while the old Ebenezer Wyeth farmhouse of 1751, which had earlier been attached as a service wing, was cut off, heavily remodeled, and relocated at 36 Larch Road.

The Larchwood subdivision with its winding, informal roads designed by Professor Henry V. Hubbard of the Olmsted firm for F.W. Norris and Company, the developers, provides a sharp contrast to the straight avenues and rectangular blocks into which earlier Old Cambridge entrepreneurs had divided land (Fig. 88). This deliberately irregular and picturesque concept of landscaping was, of course, not original, for A. J. Davis and Calvert Vaux had used it in New York suburbs in the 1850's, and a similar approach was used in the 1868 design for Shady Hill by Frederick Law Olmsted (though that project was not carried out until 1887-88) from plans by his pupil, Charles Eliot; see *Mid Cambridge*, page 30). The same concept was followed, on a smaller scale, in the late eighties around the Hubbard mansion. An important consideration in setting out the

88. LARCHWOOD SUBDIVISION PLAN, 1915. PRAY, HUBBARD & WHITE



89. LARCHWOOD DR.

streets in Larchwood was the preservation of certain trees and shrubs in Gray's extensive botanical garden. Most of the meandering streets preclude through traffic and monotonous row housing, and the scale of the dwellings, built to be maintained with less domestic help than earlier ones, make this area extremely attractive to modern families (Fig. 89).

Architecturally, the area is composed largely of houses of Georgian Revival design, but since some of them were built before World War I and others not until the late 1940's, it is possible to trace the marked changes in detailing and execution that took place within this architectural idiom over a third of a century. A contrast to Larchwood's quiet, winding lanes, but surely unforeseen by the planners, are the roaring crests of traffic that surge along Fresh Pond Parkway, their ebb and flow controlled by traffic lights at each end of the district.

The western limit of this survey area is Aberdeen Avenue, not built up with two-family residences until the 1920's but of some interest historically. A part of Ebenezer Wyeth's farm, it was acquired by a stone-cutter named McDonald, who set up his monument works conveniently close to the gate of Mt. Auburn Cemetery; a spur line connected his yards with the nearby Fitchburg railroad. McDonald later plotted a street through the middle of his 13-acre field and named it after his native place in Scotland.

The history as well as the location of Coolidge Hill sets it somewhat apart from Brattle Street. Under present conditions, it is hard to imagine that the intersection of Fresh Pond Parkway and Mt. Auburn Street, a terrifying stretch of asphalt onto which no pedestrian should ever venture, was a cradle of early

settlement in Massachusetts. Here, at what later became known as Gerry's Landing, the bank of the Charles River offered a firm landing place, and it was near this point that Sir Richard Saltonstall in 1630 established the first Watertown settlement. In contrast to Newtowne this was a spread-out community whose house sites extended as far east as Sparks Street, while on Coolidge Hill itself there were eight allotments. The first Watertown meetinghouse was built near the present Home for the Aged on Mt. Auburn Street, while the parsonage stood across the street in the vicinity of Elmwood mansion.

Until Memorial Drive was extended through to Fresh Pond Parkway in 1946, this valley was meadowland leading down to the Charles River. The sylvan setting was enhanced by the wooded hillside of the Forbes estate and the tranquil rear lawn of the Home for Aged People. In such a setting one could speculate about life in the early Puritan settlement or hypothesize (as did Professor Eben Horsford) about an even earlier Viking landing. Today, however, one had never mind the traffic.

When the initial settlers removed toward Watertown Square after 1635 the allotments were gathered into farms by a few remaining families. Most of Coolidge Hill was acquired by the Samuel Thatcher family, in whose possession it remained until 1793. Owned later by Elbridge Gerry—and thus briefly annexed to Elmwood estate—it came eventually into the hands of Josiah Coolidge and his son Joseph, who kept the farm together until World War I, except for some 11 acres sold in 1865 to the city for the Cambridge Cemetery. The last remnant of the farm disappeared in 1924. Near what had earlier been an access road to a farm further south on the river, Coolidge Avenue was laid out in 1830 and became the boundary of the newly founded Mt. Auburn Cemetery.

Partitioning of Coolidge Hill began in 1910 with sales of the lower meadows to Browne and Nichols School and in 1925 to Shady Hill School; the eastern crest was purchased by the Forbes family in 1910 and developed as a family enclave. The more intensive subdivision of the hill's northern slope as Coolidge Hill Road took place in 1915, while larger hilltop lots were laid out in 1924.

Surrounded by cemeteries, school grounds, and a traffic artery, Coolidge Hill is very much of an island, and it is further protected by one-way streets that seem only to lead "out." As a result, the district's streets are as quiet as they were many years ago and their layout (by the same developers and landscape architect) attains the same picturesque informality as Larchwood, although the houses on top of the hill are larger (Fig. 90). Like Larchwood, they provide a perfect locality in which to study and compare high-grade residential building before and after the First World War.

Though the 17th-century Thatcher farmhouse near the corner of Coolidge Avenue and Mt. Auburn Street disappeared in 1831, five other structures of some antiquity survive on the hill. Numbers 8 and 10 Coolidge Hill Road are the service wing and main portion (separated in 1936) of the Widow Orne's house. This building began life in 1807 as a store across the parkway, on the grounds of the Home for Aged People; two years later it was moved to its present site and adapted as a house. Its barn (6 Coolidge Hill Road) was remodeled as a residence in 1900 by Ralph Adams Cram. The two Coolidge houses also survive: 24

90. COOLIDGE HILL ST.

Coolidge Hill Road (1822, remodeled 1900) and 34 Coolidge Avenue built in 1856. And finally, there is the trim little Federal house of 1801 at 144 Coolidge Hill, moved here in 1929 from 15 Appian Way (Fig. 150).

Mt. Auburn and Cambridge Cemeteries

Mt. Auburn has always been thought of as a Cambridge institution and its fame is widespread, both as the burial place of many famous people and as the first rural garden cemetery in this country. After its opening in 1832 it soon became one of Boston's outstanding sights, visited by simple townspeople and foreign dignitaries alike. A visitor of today, walking the secluded paths lined with sculptured memorials and ornamental planting, still experiences the impact of a 19th-century Romantic landscape.

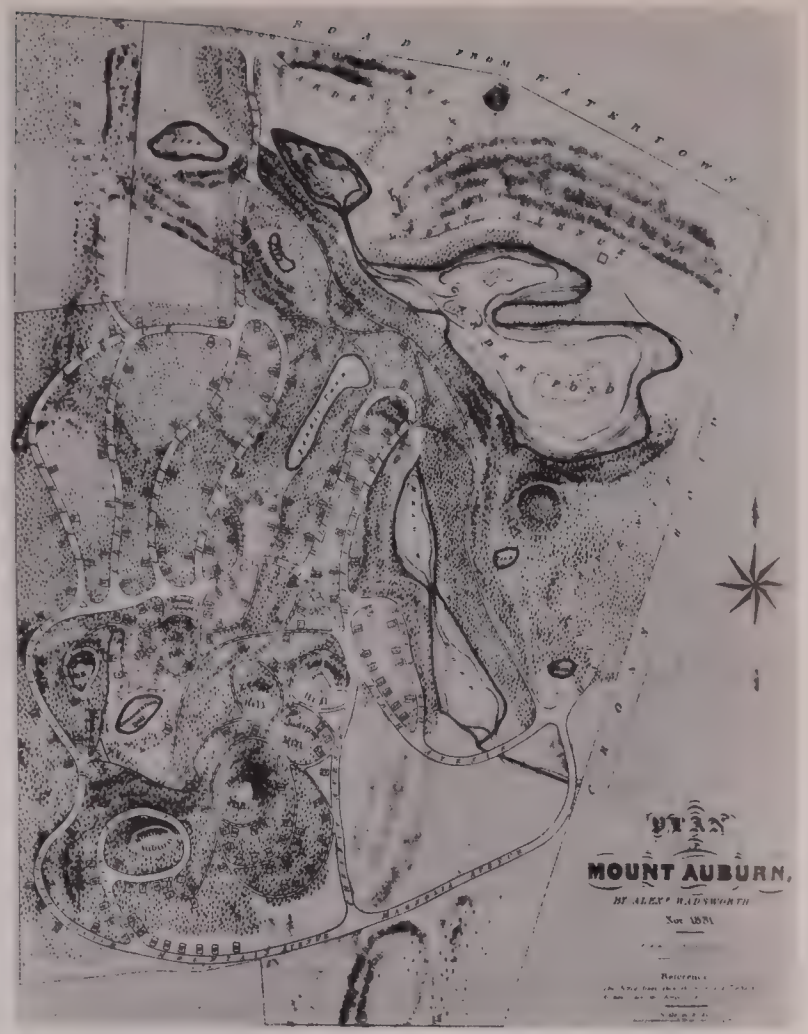
To grasp the importance of Mt. Auburn Cemetery one must realize that when it was formed in 1831 no space combining burials with rugged terrain and picturesque landscaping existed in the United States or in Europe. Although it differed from earlier graveyards attached to a church, Père Lachaise Cemetery in Paris (1804)—perhaps the most admired cemetery in Europe of the time—lacked the rugged terrain and was much more crowded with tombs. Within New England, open public spaces like the Cambridge or Boston Commons were composed of relatively flat or gently rising land. As the first rural garden cemetery, Mt. Auburn set the style for such well-known suburban burying grounds as Laurel Hill in Philadelphia (1836), Greenwood in Brooklyn (1838), and Forest Hills in Roxbury (1848).

Mt. Auburn came into being under the sponsorship of the Massachusetts Horticultural Society and played a dual role as cemetery and as experimental garden for fruits and vegetables. In fulfillment of the latter objective, 32 of the original 72 acres were set aside for an experimental plot, and seeds and plants gathered from many parts of the world were put in. Lack of funds hampered this part of the project; moreover it was obvious that burials would soon encroach upon the horticultural area. For these reasons the Proprietors of the Cemetery of Mt. Auburn was created in June 1835 to assume ownership and control in place of the Horticultural Society which had bought the property and sold the first burial plots.

The moving spirit behind the formation of Mt. Auburn in 1831 was Jacob Bigelow, a Boston citizen of many interests. Besides being a practicing physician, botanist, and author, he was professor at the Harvard Medical School and one of the founders of MIT; concerned with mechanics and printing, he also dabbled in architecture and landscape design. (His biographer credits him with coining the word "technology.") As a physician he was disturbed by the hazard to health caused by overcrowded burials within the city at a time when Boston still depended on individual wells for its water supply; this led him to advocate the establishment of spacious cemeteries in the country. Since Bigelow was also an official of the newly founded (1829) Horticultural Society, he was aware of the desire of that group to establish an experimental agricultural station. By pairing objectives he was able to bring together enough interested parties to undertake the project.

The first plot of 65 acres was purchased from George Brimmer of Boston, who had acquired the land for its natural beauty with the hope of building a country home there. Originally known as Stone's Woods because for two centuries the land had belonged to descendants of Simon Stone, an early Watertown settler, the terrain is very irregular, part of a glacial moraine with several ponds and an 136-foot hill from which a panoramic view of Boston could be obtained. Among Harvard students and the people of Cambridge who knew its huge trees and wild, picturesque beauty, this district had acquired the popular name of "Sweet Auburn," a term derived from the first line of Oliver Goldsmith's *The Deserted Village*. Subsequent purchases have increased the original grounds to the present 165 acres, but only 15 of these are within the limits of Cambridge.

In 1831 Dr. Bigelow employed Alexander Wadsworth to survey the site for the location of footpaths and carriage roads. Wadsworth's imaginative solution—no doubt supervised by Bigelow who is traditionally credited with the design—was to wind the roadways around the hills and ponds, their routes dictated by the terrain, in order to achieve picturesque vistas and make efficient use of the ground. (Since lots were only 20 by 15 feet, paths were closely spaced.) As first laid out Mt. Auburn consisted of two areas: the burial plots arranged in a broad axis from the main gate up the slope of Auburn Hill ("Mount Auburn") and the Horticultural Society's 32-acre experimental garden to the left (east) of the entrance. After the Proprietors assumed control this garden was platted for burials, once Halcyon Lake (formerly Garden Pond) had been reduced in size. Other topographical changes were also made. Although the highest hill, Mount Auburn, remains, several others were cut down to provide fill for smaller ponds and other low areas. Despite these changes, the initial design of 1831-32 survives



91. WADSWORTH PLAN OF MT. AUBURN CEMETERY, 1831

substantially intact from the main gate to Auburn Hill: the areas that best preserve their early character are Central and Mountain Avenues and the Dell (Fig. 91).

Although privately owned, the grounds were open to the public, and during the 1840's and 1850's the cemetery attracted many visitors. Detailed guidebooks were published describing the best routes through the maze of paths and highlighting the most impressive memorials. Mt. Auburn's appeal was so great that transportation facilities to Cambridge were developed to serve it. By 1845 the demand supported a regular hourly omnibus direct to the gate from Boston, thus

providing an inexpensive summer excursion for families seeking relief from the heat. In 1856 the omnibus was replaced by horsecar service along the same route (Figs. 9-10).

Despite the dominance of burial over botanical use, Mt. Auburn has maintained an interest in horticulture. When purchased, the region was so heavily wooded that it required years to thin, but the planting of ornamental trees began early with the setting out of elm and mountain laurel in 1835 and of rhododendron from England in 1859. Yearly reports record that something like 250 trees and 400 bushes were planted before 1882, the year of the greatest activity, when 645 trees and 1892 shrubs were set in place. Another burst of activity is recorded in 1935, when 3300 plants, mostly flowering shrubs, were put in. The hurricane of 1938 felled 811 trees, approximately 16% of the total stand, and necessitated the planting of 750 new ones. Now the cemetery contains over 200 species of deciduous trees and 65 of evergreens. Care is also exerted to cultivate plants that will attract birds, for Mt. Auburn is a bird sanctuary and a favorite haunt of Boston bird watchers.

The sale of cemetery lots has continued without interruption, the last two sections having been opened as recently as 1973; but it is estimated that all available land will have been disposed of before 2000. Changes in the price of lots furnish some indication of the rise in Cambridge real-estate values: the first lots sold (1831) at $.20 per square foot; in 1850 the price had risen to $.50, then to $1.00 in 1891, to $3.50 in 1951, and to between $7.50 and $10.00 in 1972.

Changing concepts in cemetery design during the last century are also well illustrated here. During the first decades (1835-45) vault-like tombs were more popular than monuments at the ratio of 190 to 164. The middle third of the century witnessed the rage for fences surrounding plots, of which there were well over 1500 by 1870, mostly of cast iron. The years 1865-85 saw fencing give way to granite curbings with more than 525 installations. But these fashions passed; the fences began to be removed in the 1870's, curbing in the 1930's—both tendencies encouraged by cemetery officials because they simplify maintenance. In 1873 the "landscape lawn" plan was adopted, thereby prohibiting the enclosure of lots by fencing or curbs. Fashions in sepulchral monuments have also changed. Despite the belief that elaborate tombs indicated vanity, many Victorian patrons chose showy monuments, far too many to mention here. It took a cemetery regulation in 1876 to restrict the height of headstones to 2 feet 6 inches, and in 1931 these were lowered to ground level, each plot being allowed no more than one projecting stone. In the newest subdivisions stones of any sort above ground are prohibited, the so-called "lawn marker" system.

Perpetual care of plots was made mandatory in 1876, after which date the cost for this service was included in the purchase price of a lot. Formerly lot-owners had been assessed each year for maintenance; if the assessment was not paid, the lot was left unattended. The economic advantage of reducing the number of monuments projecting above ground, which require extra time for grass trimming, can be appreciated when one considers that the average hourly rate for maintenance crews in 1891 was $.19, $1.33 in 1951, approximately $3.50 in 1972.

92. GATEWAY, MT. AUBURN CEMETERY, 1842. JACOB BIGELOW. REPLICA OF 1832 GATEWAY. PHOTO OF C. 1860

Of greatest architectural interest at Mt. Auburn is the 25-foot-high granite main gateway, designed by Dr. Bigelow. This structure (1842; Fig. 92) replaces one of identical design constructed of wood in 1832. To simulate stone the earlier gate had been dusted with sand while the paint was wet, but such subterfuge disturbed the Ruskin-trained consciences of many critics. The present gateway was entrusted to O.T. Rogers of Quincy, the only contractor able to cut and install the 22-foot monolithic cornice. This design at Mt. Auburn established the fashion for Egyptian Revival cemetery gateways in America, such as those at Old Granary Burial Ground (c. 1837) in Boston and Grove Street Cemetery (1848) in New Haven. Dr. Bigelow also designed the cast-iron fence executed in 1844 to replace an earlier barrier of wood along Mt. Auburn Street. Iron fences along the other sides were added in 1849.

Bigelow Chapel, named for the founder who was also its designer, stands on a hill in the middle of the cemetery. Again this edifice (1858; Fig. 93) is a replica of an earlier edition of 1843 which had to be replaced when the granite of which it was built was discovered to contain quantities of iron that caused the blocks to disintegrate. The somewhat gauche exterior design recalls the first Harvard library building, Gore Hall (1828), but the interior as remodeled in the 1920's is somewhat more successful. Dr. Bigelow also had a hand in the design of the 62-foot-high granite lookout tower on Auburn Hill, though the actual drawings came from the office of Gridley J.F. Bryant in 1852.

Story Chapel, the building of Potsdam brownstone adjacent to the main gate, was designed in 1897 by W.T. Sears, who had won the architectural competition. The differences between it and Bigelow Chapel are essentially those that separate a Gothick cottage of the 1840's like 85 Brattle Street from a turn-of-the-century half-timber house like 199 Brattle. This chapel replaces a fairly elaborate

93. BIGELOW CHAPEL, MT. AUBURN CEMETERY, 1858.
JACOB BIGELOW. REPLICA OF 1843 CHAPEL

wooden pavilion which had been used as a well-house and shelter. At the south gate to the cemetery is a charming relic of pre-automobile days, another rest house for visitors. Medieval in manner, this small building with unusually elaborate carved bargeboards and half-timber work was erected early in this century.

Across Coolidge Avenue from Mt. Auburn is the Cambridge Cemetery, the fourth place of interment sponsored by the city. The first, approved in 1634 and in use for only a few years, was located at Brattle and Ash Streets. The Old Burying Ground facing the Common was set aside in 1635—see Part Two—but after it had become "more than once entirely filled," a third graveyard was established at Cambridgeport at Broadway and Norfolk Street. This 2¼-acre plot was discontinued as a cemetery in 1865 by vote of the City Council, the land being transformed into Sennott Park. The remains in that old cemetery were removed to the new property, but few of the delicately carved slate headstones survived the transfer.

Many similarities exist between the Cambridge Cemetery and its neighbor across the way. Like the original section of Mt. Auburn, most of Cambridge Cemetery was once part of the old Stone farm, and the site is also hilly though less dramatic. The initial purchase (in 1853) was laid out by Hovey and Ryder in direct imitation of Mt. Auburn's naturalistic design, with miniature avenues squeezed tightly about low hills. In the lower, less desirable parts, however, a simple grid was platted along the river marsh for the Public Lots.

In 1865 another 11 acres were purchased from the Coolidge farm on the east, comprising the site of Revolutionary War entrenchments overlooking the river. This portion was laid out in 1866 in a modified naturalistic plan by J.G. Chase, City Engineer. At the same time the space near the entrance was made into a memorial ground for the Civil War dead. Unfortunately the impressive arrangement of cannon and simple white marble Gothic headstones made then was dismantled in 1972 because the stones had deteriorated badly over the years.

Another purchase in 1885 added 26 acres of Deacon Stone's farm to city ownership. The core of the original farm, this area contained the mid-17th-century house that faced the river until it burned down in 1844. Before its acquisition by the city, the property had been owned by W.P. Winchester, who built here a large house in the late forties. The Winchester house was retained by the cemetery as a chapel until 1898, and the land was platted in a mechanical way, using the former carriageway (Winchester Avenue) as axis for the plan. In 1942 a final 19 acres was purchased from the Proprietors of the Cemetery of Mt. Auburn, the last portion of the original Stone farm to be converted to cemetery use. Stabilization of the marshland bordering the river by the M.D.C., in connection with the construction of Greenough Boulevard in the late 1960's, has provided space for future burials.

Structures built by Cambridge Cemetery, like the Neo-Tudor brick offices of 1922, have been of modest design. The original wooden fence and gate of 1858 were replaced in 1893 by the present iron fence and rusticated granite piers. Of greater interest is the former lodge and chapel, now used for storage; of modified Gothic Revival style, it was built in 1868 of bluestone with dressed granite trim.

93A. MARBLE URN, MT. AUBURN CEMETERY. BROUGHT BY CHARLES BULFINCH FOR TONTINE CRESCENT (1789) IN BOSTON. NOW USED AS HIS GRAVEMARKER

PART FOUR: DOMESTIC ARCHITECTURE

Cambridge is almost unique in terms of domestic architecture. Although many communities have larger, more elaborate dwellings dating from a particular period, few have so wide a range with examples of every period from the 17th century to the present. Within the few square miles of this survey district, one finds an extraordinarily complete review of three centuries of American houses.

Almost every one has heard of the great Tory mansions lining the old road from Harvard Square to Watertown, and most readers of this Report already know them well. Not so generally recognized, however, are Cambridge's other architectural resources, which include good specimens of 19th-and early 20th-century buildings, many of them designed by well-known architects. Another interesting aspect of the subject is the proportionately large number of old Cambridge houses that were designed by architects for their own use. This group exhibits a level of architectural discrimination well above average and provides a sensitive indicator of trends and tastes for the decades in which they were constructed.

Within the district surveyed, one other important architectural asset is the excellent state of preservation. Situated as it is at the heart of Greater Boston, Cambridge has had no frontier, no room for the succession of subdivisions that encircle most modern cities. Yet thriving commercial, industrial, and educational interests and accessibility to downtown Boston allow Cambridge to continue as a convenient and desirable place in which to live. Since there is almost no free space for constructing new buildings, old neighborhoods and old houses have had to be retained, and Cambridge citizens have learned to appreciate and care for them. Indeed, the United States has very few neighborhoods of Victorian houses as extensive and as well maintained as those of Brattle Street and Avon Hill, and these, rather than dwindling in numbers and declining in level of maintenance—as are old sections of so many other towns—are being improved. Old Cambridge thus provides not only a broad sweep of American architectural development but also an optimistic and favorable demonstration of how successfully a spacious and handsome old residential quarter can be adapted to modern living.

In the discussion that follows a rigorous selection of buildings has been exercised in order to avoid a blurring of dates, stylistic detail, and names. One example will be discussed for each style, as fully as space permits, with reference to structure, planning, and interior treatment as well as to external appearance. This analysis will be followed by brief references to comparable structures or to significant variations upon the architectural style. The choice of examples has been guided by several factors: consent of the owner to the study and publication of his dwelling; the building's authenticity (the degree to which it has escaped later change); its aesthetic value; and the prominence of persons or events associated with it. Fairly elaborate dwellings have usually been chosen, because they offer a somewhat fuller range of a movement's visual characteristics, but mention will also be made of both modest-sized and vernacular examples. Reference will then be made to 20th-century attempts to reproduce the earlier style. By including sections on these revivals as well as on modern work, we hope to demonstrate something of the sweep and continuity of Cambridge domestic building through three centuries. But because of widespread interest in old houses, the sections on early architecture will be the more exhaustive; a list of surviving houses in the district erected before 1833 is appended later in this section.

The Colonial Period

In 1635, five years after the founding of Cambridge, a register made for the town fathers listed 74 houses; in 1642 the number was 104; in 1647 only 90. A great proportion of these buildings was within the limits of the original town, close to Harvard Square, and has therefore disappeared. Further from the square, however, two important dwellings survive which retain aspects of their 17th-century character although remodeled in the 18th century. Fortunately both buildings are owned by historical societies that keep them in excellent repair and open to the public.

The Cooper-Frost-Austin house, 21 Linnaean Street, was begun about 1691 by Samuel Cooper, at a time when the Cambridge Common extended as far north as Linnaean Street (Fig. 94). Originally only half its present size, the house was enlarged about 1720 by Walter Cooper, who added the left half, with further changes made about 1810 and 1830 by Thomas Austin. In 1912, after the Society for the Preservation of New England Antiquities purchased the property from the Austin heirs, the house was carefully restored by Joseph Chandler.

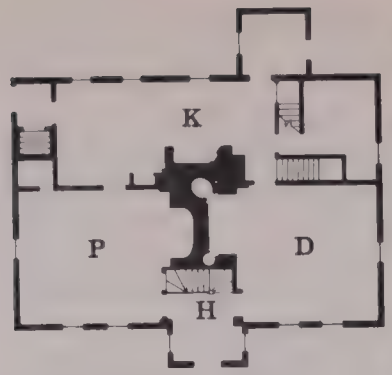
Rising to its present height, the original house contained only the entry and rooms on the right. Fenestration also has been altered, once in the first half of the 18th century and again in the early 19th; but traces of the original scheme survive in the framing. It is probable that the facade had banks of triple casements filled with diamond-shaped panes which might have resembled those in the restored Abraham Browne house of about 1695 in Watertown. A 17th-century origin is also announced by the steep roof where the framing of the rafters indicates there was originally a front gable. Such cross gables were not uncommon, as one knows from the House of Seven Gables of 1668 in Salem. Still other Medieval aspects are the overhanging end gable and the rear lean-to roof with its long sweeping lines. Indeed, the rear view of the house is the most convincing: set in a thicket of trees, it presents a picture of an early Cambridge dwelling (Fig. 95).

One more typical 17th-century feature is the large center chimney whose exterior surface is decorated with brick pilasters. Despite its unified appearance, the chimneystack evidently was built at three different times. Because of the way the flue for the hearth of the lean-to is joined to the masonry, it is clear that it has been added; likewise, another pair of flues must have been fused to the center chimney when the left half of the house was added about 1720. This means that originally the main downstairs room served for cooking as well as for living, a true "hall" in the Medieval sense, but when the fireplace was added in the lean-to, kitchen activities were removed there. As in so many other old houses "modernized" in the 18th and 19th centuries, the huge 17th-century hearths were reduced in size by the simple expedient of building a new, smaller, and more efficient fireplace within the older one. When the house was restored in 1912, the fireplaces were reopened to their original size.

94. COOPER–FROST–AUSTIN HOUSE, 21 LINNAEAN ST., C. 1691, C. 1718, C. 1720, C. 1810, C. 1830, 1912

The Cooper-Frost-Austin "hall" and parlor give an accurate impression of 17th- and early 18th-century interiors (Figs. 97-98). The ceiling of the old "hall" (now used for dining) was originally unplastered, so that the wooden framing and flooring of the chamber above were exposed. Most notable is the enormous 12- by 11-inch summer beam that extends between the outside and fireplace walls, a clear expression of the hierarchy of support as the floor load above is transferred to joists, to summer beam, to chimney and end girts, to vertical posts. The notching and fitting of the joints is skillful and the chamfer of the summer beam complex. This open ceiling was later plastered over but was uncovered during the 1912 restoration. The somewhat later parlor also has a summer beam (which had to be shored up by an interior post when the house was restored) but, in keeping with the 1720 date, the ceiling here has always been plastered in order to hide the joists and thus to obtain a smoother, flatter, more formal appearance. Still the transition was not yet complete, because hewn girts and summer beam project below the plaster surfaces; now, however, their corners are finished with

95. COOPER–FROST–AUSTIN HOUSE. BACK YARD



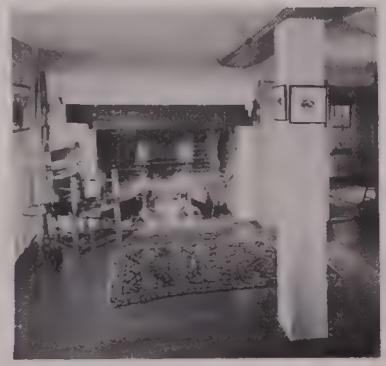
96. COOPER–FROST–AUSTIN HOUSE. PLAN

97. COOPER–FROST–AUSTIN HOUSE. HALL

a bead molding instead of a chamfer. Furthermore, a fireplace of such large scale as that in the parlor was decidedly old-fashioned for the 1720's; (the present rough-hewn lintel is an inaccurate restoration of 1912).

Both second-floor rooms contain fairly elaborate paneling, because it appears that, until the end of the first half of the 18th century, upstairs chambers were often considered the best rooms and were used for entertaining as well as for sleeping, undoubtedly a reflection of the European *piano nobile*. In both instances, paneling on the fireplace wall is supported by wooden framing members independent of the brick chimneystack, so that the paneling projects slightly in front of the fireplaces. The fireplace wall in the older hall chamber is composed of vertical, shadow-molded sheathing that has a linear look recalling Tudor linenfold work, while the rear wall of the same room is sealed with horizontal boards (Fig. 99). The raised paneling in the parlor chamber has a tentative Early Georgian look, its fireplace opening and mantel shelf enlivened by complex moldings that do not yet conform to standard Classical profiles.

98. COOPER–FROST–AUSTIN HOUSE. PARLOR



99. COOPER–FROST–AUSTIN HOUSE. HALL CHAMBER

Since almost no house remains untouched generation after generation, so the Cooper-Frost-Austin house was again modified in the 19th century. The outbuilding now serving as an open porch with graceful elliptical arches dates from about 1810, while the entrance hall was enlarged about 1830. Uncomfortably dark and narrow in its original form, the hall enlargement took the form of a projecting vestibule with windows on the sides. At the same time, the stairs were rebuilt and their direction reversed, a relatively simple change entailing no modifications of major structural members; there was, however, insufficient room to make them straighter or less steep. The details of the new stairs are typical of Old Cambridge usage between 1800-30: the newel is gracefully turned, and the rectangular balustrades have thin, light proportions.

The second 17th-century house, at 159 Brattle Street—now owned by the Cambridge Historic Society—was begun as a farmhouse about 1685 by Dr. Richard Hooper when this region was still part of Watertown (Fig. 100). Although previous references to the house have cited only the remodeling carried out for Judge Joseph Lee about 1760, the house appears to have been reworked twice before that date. A drastic renovation is documented for 1716-17 after it had been ravaged by "ye worms" (undoubtedly termites). Internal evidence indicates that another reworking must have taken place about 1745, when the third story was added, thereby requiring the original steep roof to be considerably flattened and the wooden, chamfered corner blocks placed on the facade to resemble stone quoins. At that time the west elevation was plastered, scored to resemble ashlar (such stucco work being known as roughcast). Judge Lee added the projecting entrance vestibule and thereby contributed an important element to the architectural vocabulary of later Cambridge builders; the entrance is unusually wide and handsome (though the actual door is a 1916 replacement). Still later additions are the outside shutters, something of an innovation when they were added at the end of the 18th century, their proportions appropriately heavy to suit that date. The balustrade that finishes off the facade and emphasizes the spacing of the windows was not added until 1860.

Thus little remains of the 17th-century design on the exterior except the enormous center chimney, a huge construction, 12 feet square with six flues. Most probably in the 1740's the original large fireplaces were cut down in size and framed with paneling of Early Georgian design. Recent repairs in the dining-room have revealed the presence of the original fireplace behind the present one, and now a door in the paneling allows visitors to see the two hearths, one set inside the other (Fig. 101). Evidence of change can also be seen in the fireplace of the left chamber.

Traces of 17th-century construction in two other Old Cambridge residences should be mentioned. A dwelling was built on the site of the Henry Vassall house at 94 Brattle Street in 1637, and some framing members of the present building's southwest corner possibly date from that time; however, extensive remodeling in each subsequent century has largely obscured the early work. Even more tenuous a connection with 17th-century Cambridge may be found in the Read house, which now stands on Farwell Place. A careful inspection of the basement in 1967 revealed four curious five-sided beams which appear to be reused from a 17th-century public building. (A possible source for these might have been Old Stoughton Hall at Harvard built in 1699, but its demolition date of 1781 would appear to be late for the probable 1772 date of the house.)

100. LEE–NICHOLS HOUSE, 159 BRATTLE ST., C. 1685, 1716, C. 1745, C. 1760, 1860, 1916

The Colonial house plan, with central chimney and squeezed winding stairs, did not immediately disappear with the advent of the more Classical Georgian era. While no longer used for fashionable mansions, the old plan continued in vernacular dwellings for many years, as can be seen in the Hicks house, a modest residence of 1762 at 64 Boylston Street. This tendency for an established architectural detail or usage to hang on for generations while descending the socio-economic scale is often observed in architectural history; a somewhat related phenomenon is the time lag in the spread of an architectural style from a center like Boston to outlying regions. Sometimes this lag is a consequence of distance: the further up-country, the later the new fashion will arrive. In other instances, it is the result of cultural barriers; despite their proximity to Boston the majority of Cambridge people remained behind in fashion until well into the 19th century (as discussed in Part One).

101. LEE–NICHOLS HOUSE. DINING ROOM (EAST ROOM)

102. 19 OLD DEE RD., 1940. ROYAL BARRY WILLS

Before leaving the Colonial style, it might be interesting to mention several houses built in the 20th century in the style of the 17th. Good attempts to reproduce the earlier forms can be found at 72 Raymond Street (1922), 30 Gray Gardens East (1928), and 19 Old Dee Road (1940; Fig. 102). Although imitating the prototypes in scale and exterior material (weathered clapboard or shingles), the modern designers and their clients were unwilling to be restricted to the tiny casements of the originals that seemed so inadequate by current standards; instead, the new houses were usually equipped with ample double-hung windows.

In the house on Old Dee Road the architect, Royal Barry Wills, creates a conscientious replica with steep roof, overhang and drops, and a lean-to skilfully adapted as a garage. The large pilastered chimney is retained in the center of the house despite the fact that it required the architect to improvise a stairway at the rear of the ground floor since no present-day owner would put up with a cramped front-entry staircase of the 17th century.

But few architects have been so respectful of the past: dissatisfied with earlier simplicity, they have sought to improve on the originals by adding decorative features. Generally employing the second-story overhang (a frequent but by no means universal feature), the copyists often created a more picturesque facade composition than the 17th century would have had—as at 84 Garden Street (1922; Putnam and Chandler)—by the addition of wings or long banks of leaded casements with transoms in a Tudor manner. The quest for picturesque embellishment could also lead to a timbered entrance porch with carved members, which finds parallels in late Gothic England but not in America. On the other hand, the characteristic lean-to roof with its long, flowing lines giving a calm dignity to the originals was a luxury in which few copyists could indulge since it sacrificed too much outside light and inside headroom. Furthermore, the lean-to is located at the back of the houses, while features added for the sake of appearance are generally placed at the front. Although taking liberties with the usual plan and fenestration, 1 Hemlock Place (1954), with its dark stained siding and deeply shaded sylvan setting, best represents the atmosphere of colonial America as we have come to imagine it.

Three Phases of Georgian Building

Early Georgian

Before going further, the meaning of the terms Colonial and Georgian should be clarified: Colonial is used for North American work of the 17th century that is essentially Late Gothic in character; Georgian refers to 18th-century work that derives from the Italian Renaissance through intermediary English work. The widespread confusion of these two terms goes back to American writers and architects of the 1870's and 1880's who rediscovered the beauty of this country's early architecture but failed to draw a distinction between work of the two preceding centuries. Since essential differences exist between the two styles, we must differentiate between them.

It is also necessary to recognize different phases of Georgian work which lasted for more than a century, from 1700 to about 1825. While it is artificial to impose sharp divisions upon an organic, on-going movement, recognition of phases helps us observe the changes that take place. Early Georgian, the simplest phase, falls within the first third of the century.

Although this manner derived from bold and rather florid late Stuart work, with heavy moldings and rich surfaces, it tends, in America, toward simplicity. This simplicity can be explained by the fact that many of our key Early Georgian monuments have been demolished or remodeled and that surviving examples are generally to be found in outlying localities where tastes were simpler and budgets limited.

Middle or High Georgian is what people usually think of when they refer to the Georgian movement. Extending in the Colonies from about 1740 to 1790, this phase produced the great mansions and plantation houses constructed before the American Revolution, and it includes most of the famous old Cambridge houses on Tory Row. A fulfillment of trends begun in the Early Georgian period, High Georgian strove for more correct and elaborate Renaissance detail derived from Roman antiquity and Palladio and made possible by the use of architectural handbooks.

The late phase of Georgian (or Federal as the work is called in America) is the period of Bulfinch and the beginnings of the Beacon Hill neighborhood in Boston. It extends from about 1790 to 1820, though in Cambridge traces are found in vernacular work as late as 1840. Proportions rather than applied detail are emphasized now, and ornamentation is elegant and precise rather than profuse.

The switch early in the 18th century from Colonial to Georgian architecture was a major one, since it entailed a basic change from late English Gothic to the English version of the Italian Renaissance. In this change Gothic verticality, emphasized by steep roofs, tall pilastered chimneys, etc. gave way to Renaissance horizontality where the composition emphasized horizontal divisions between floors and where roofs gradually became lower in pitch throughout the Georgian period. Further, most Georgian facades were meticulously symmetrical, a matter to which Colonial designers had been fairly indifferent, and

fenestration changed from small leaded casements to larger, double-hung windows. Overhangs of upper stories were eliminated, as were attendant Tudor decorative devices like pendants and brackets, while the eave line was boxed to recall a Classical cornice. As the period advanced, other decorative forms were added, grouped around doors or windows or at the corners.

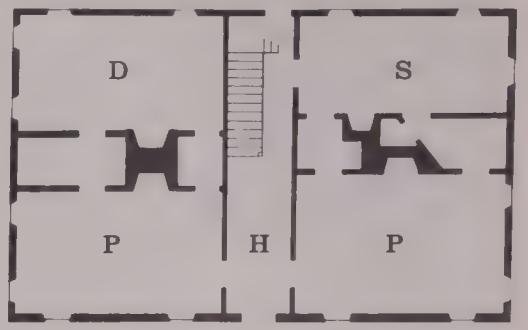
A very important building when erected in 1726 and a good example of Early Georgian design in Cambridge is Wadsworth House, facing Massachusetts Avenue in Harvard Square (Fig. 103). Built by the province as a residence for the president of Harvard College and used as such until 1849, it was one of the few large houses in Cambridge not constructed by a Tory. The most distinctive feature of the five-bay facade is the gambrel roof with hip dormers. Eaves are boxed to form a cornice that is decorated with curious small brackets, a local detail repeated in William Brattle's house of about the same date. Fenestration is symmetrical and substantially larger than in Colonial work, but the glass panes are smaller than those used a half-century later (the 12/12 windows have twelve panes each in upper and lower sash). Their placement close under the eaves is characteristic of the early 18th century; indeed so close are they to the cornice that when upstairs shutters were added about 1820, there was no room for these to swing—consequently their tops were cut off and nailed against the upper window frames. (Shutters were a new feature in American architecture at the time of the Revolution, and those preserved on the first floor illustrate the earliest form, with heavy, widely spaced louvers.) Another early characteristic is the way the window frames project strongly in front of the wall—on Wadsworth House as much as 2¼ inches. This feature results from the method of framing the wall, a topic to be discussed later. Clapboards of the facade are narrower than those used today, hand-planed to a beaded edge, and the curious lapping of the clapboards at the corner is awkward but not unique among 18th-century houses in Middlesex County.

The simplicity of Early Georgian houses seems to have left later generations unsatisfied, because they were so frequently brought up to date with additional ornamentation—thus none of Cambridge's early houses has survived unchanged. At Wadsworth House a drastic enlargement of the ground story in 1783 added the bays at the end of the facade and probably the entrance-porch. Characteristic of Adam-influenced work, the thin dentil cornice used for these extensions (as well as for the remodeled interiors) is out of scale with the original heavy cornice. A later addition was the brick-ended kitchen wing at the rear (1810).

Wadsworth House employs the Georgian center-hall plan with wide stairs placed far back from the entrance—much more spacious and imposing than the cramped Colonial entry (Fig. 104). Except for the stairway with its rather clumsy newel (Fig. 119), little of the original interior remains intact—not surprising when one realizes that before being converted into offices the building served as a dormitory during most of the 19th century.

For an Early Georgian interior we must turn to 159 Brattle Street, the Lee-Nichols mansion already mentioned. Built in the 17th century with documented remodelings in 1716 (finished by April 1717) and 1760, it must also have been changed in the 1740's to judge from the interior paneling which is the glory of the house. Basically the same in the four main rooms, the woodwork is handsomest in ground floor rooms. Here the paneling covers the fireplace walls entire-

103. WADSWORTH HOUSE, 1341 MASSACHUSETTS AVE., 1726, 1783, 1810



104. WADSWORTH HOUSE. PLAN

ly, with the plane around the fireplace slightly recessed behind the flanking walls (Fig. 105). In characteristic early Georgian fashion, the hearth openings are framed by heavy bolection moldings, there is no mantel shelf, and the overmantel consists of a simple horizontal panel without carving or elaborate moldings. Such details would have been unacceptably old-fashioned in 1760 yet were probably too luxurious and advanced for Cambridge in 1716. The wall paneling has two ranges of panels, which are as simple as possible. Presumably in the 1740's remodeling, the girts and summer beams, exposed in the 17th century, were cased, the ceiling was plastered, a heavy cornice molding applied just below the ceiling, and the outside walls furred to provide space into which the interior window shutters could fold. This additional wall obscured the corner framing posts and added a degree of insulation, although by modern standards all early houses were inadequately insulated. Except for fireplace walls, interiors are surfaced with wood only to the height of window sills to form a simple wainscot; above this the walls were plastered and probably originally painted, though wallpaper is known to have been used in this house before 1770.

The three-run stair of the Lee-Nichols house follows the winding Colonial plan, yet it appears to date from the 1716 alterations (Fig. 106). Its design is transitional: the closed string reflects early usage, and the newel—a rectangular post with a panel let into one face—is much simpler than the turned newels at the Brattle or Wadsworth houses (Fig. 119). The handrail is molded only on the outside surface and it butts into the newel and corner posts at awkward angles. Formerly wooden drops (turned pendants) were suspended from the upper posts.

105. LEE–NICHOLS HOUSE. WEST PARLOR

106. LEE–NICHOLS HOUSE. STAIRS

A second example of Early Georgian building is the house of William Brattle at 42 Brattle Street built in 1727, today the Cambridge Center for Adult Education (Fig. 107). Somewhat smaller than Wadsworth House, it also has a gambrel roof and a cornice with the same bracket supports. Otherwise the facade has been changed in several ways: the enclosed entrance vestibule is an 1891 addition clearly inspired by the Lee-Nichols entry, and new sash with larger 6/6 panes replace the old ones. Although the interior was once very handsome, many changes have been made, and the only remaining paneling is found in the right parlor (though the mantel is new; Fig. 108). Pilasters on pedestals and ornate bolection moldings over the mantel and doors are elaborate for this early period in Cambridge and show an attempt to reproduce the rich wall surfaces fashionable in England at the time. Of the original stair only the newel and balusters are left; the rest was rebuilt after the 1955 fire.

Similarly, the Henry Vassall house at 94 Brattle Street retains some good interiors which were being completed in 1746 (according to a newspaper notice of that date) by a Boston carpenter named Joseph Eayres. Since the owner and his wife moved in the most fashionable circles of the province and were related to the leading families, it is not surprising that the style of the woodwork here was in the very latest mode. In the eastern half of the house the stair hall spanned by an elliptical arch (Fig. 109) is similar to that in Isaac Royall's country house in Medford; (Royall was Mrs. Vassall's brother). A second floor chamber contains the most elaborate Early Georgian woodwork in Cambridge: the wall is divided into bays by pilasters on paneled pedestals and the spaces between are filled with bolection paneling (Fig. 110). The exterior of the Vassall house has been greatly changed; roughcast (the same stucco also used on the west end of the Lee-Nichols house) covered exterior walls until about 1825, but the cornice is original.

107. WILLIAM BRATTLE HOUSE, 42 BRATTLE ST., 1727, 1891, 1955

108. BRATTLE HOUSE. RIGHT PARLOR

109. HENRY VASSALL HOUSE, 94 BRATTLE ST., 1637 (?), 1746, C. 1825. EAST STAIR HALL, 1746.

110. HENRY VASSALL HOUSE. CHAMBER

111. 115 COOLIDGE HILL RD., 1926. GEORGE C. WHITING

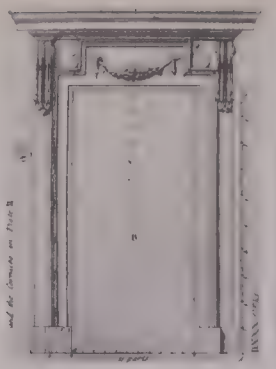
Twentieth-century reproductions of Early Georgian designs in Cambridge are hard to find. The simplicity and sometimes awkward quality of the original movement held less appeal for revivalists than did ornate High Georgian forms. Nevertheless two good examples stand at 7 Old Dee Road (1937; Duguid and Martin) and 115 Coolidge Hill (1926; George C. Whiting) (Fig. 111). The first, a one-story dwelling facing an apple orchard in the side yard, copies the simpler sort of house of the period; the larger, Coolidge Hill house imitates a more ambitious model, and features like the steep roof, low set cornice, and small-paned windows readily associate it with early types. Another design with high archaeological standards is 10 Fayerweather Street (1936; W.M. Duguid): with small (12/12) windowpanes, the design generates the rather tight, slightly awkward feeling often encountered in early or provincial work. The sense of constriction here may come from the fact that the model was probably to be found in a remote area and conveyed this very quality; indeed, the beautifully detailed entrance with its double door appears to reproduce a design from the Connecticut Valley.

High Georgian

The Middle or High Georgian period in America is a provincial interpretation of English Palladianism which appeared in the second quarter of the 18th century. There it was advocated by Lord Burlington and his circle, who found inspiration in the 16th-century work of the Italian architect Andrea Palladio with its bold scale and strict use of the Classical orders; they were also influenced by the work of Inigo Jones, who had introduced Italian Renaissance architectural concepts to England. Although the basic architectural theory was not so complicated but that an amateur with the inclination as well as the means to buy architectural books could obtain considerable knowledge of it, not many Americans possessed such a background. What redeemed their work was the generally high level of the vernacular and good craftsmanship. In creating designs, however, most Americans tended to think in terms of isolated details rather than of the whole.

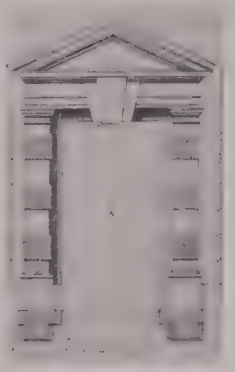
In fundamentals like plan and massing, the large High Georgian house in America is similar to Early Georgian work. The center hall continues to be flanked

112. DOORWAY DESIGN FROM LANGLEY, *THE CITY AND COUNTRY BUILDER*, 1756



113. LONGFELLOW HOUSE. ENTRANCE

114. DORIC DOORWAY FROM LANGLEY, *THE CITY AND COUNTRY BUILDER*, 1740



115. READ HOUSE, C. 1772. ENTRANCE

symmetrically by one or two rooms, with service quarters fitted into basement or wing. The earlier gambrel roof gives way to a hip or gable roof, and there is a tendency over the years for the slope to become lower. But above all, ornamentation is more profuse and somewhat more classical.

In Cambridge, as in other colonial centers during the middle years of the 18th century, there were almost no professional architects, although informed amateurs like Peter Harrison or Governor Francis Bernard gave advice on substantial undertakings. This lack of a professional class was not as serious as might be inferred, because the core of the house—plan, construction, and fenestration—was a rather straightforward matter, basically quite similar from one building to the next. Differences were created by building size and the quantity of applied ornamentation. The earliest sources of inspiration were the books on architecture published in England after 1725 for housewrights or patrons with enlightened interests. An owner or builder leafing through one of these books could select a window design here, a door frame there, a cornice detail from yet another page, rather as one selects items from a mail-order catalogue today (Figs. 112-115). This assortment of decorative detail was then imposed on the basic core. The process of embellishing a house was not unlike that of decorating a Christmas tree: the richer and more conspicuous the decoration, the more splendid the result. One might expect the results to be superficial, but such was

116. VASSALL–CRAIGIE–LONGFELLOW HOUSE, 105 BRATTLE ST., 1759, 1793

not the case, for one almost never sees a bad Georgian building. What gives distinction to this work are the high level of design the tradition had achieved and the excellent craftsmanship: the same basic forms were repeated so frequently that builders learned to handle them well.

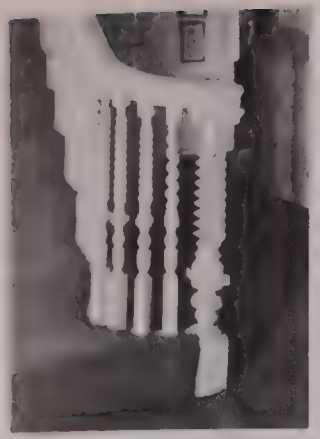
The logical example with which to illustrate High Georgian taste in Cambridge is the Vassall-Craigie-Longfellow house (Fig. 116). (Architecturally elaborate and well maintained, it has been open to the public through the generosity of the Longfellow Memorial Association and will be administered by the National Park Service as a National Historic Site.) The history of the house may be summarized briefly: built in 1759 by John Vassall, a Jamaican planter who was loyal to the Crown, it was confiscated during the Revolution and sold to a succession of post-Revolutionary speculators, the richest of whom was Andrew Craigie, first Apothecary General of the United States Army and later an active Cambridge real estate promoter. Craigie enlarged the house at the rear in 1793 and added the side entrance and wide "piazzas," to use the 18th-century term. After the death of Craigie's widow in 1841, the house was bought by Nathan Appleton, who gave the house to his daughter upon her marriage to Henry Wadsworth Longfellow. The Longfellows changed a few mantelpieces and furnished the house with Victorian furniture and older family pieces which can still be seen.

In Vassall's time the property, which included 87 acres and extended from Observatory Hill to the Charles River, was maintained as a country estate rather than a working farm (Fig. 71). Under Craigie the holding increased at one point to 140 acres but, with the failure of business ventures, the Craigies sold off certain portions; the house lot had dwindled to 5 acres when the Longfellows acquired it. Later generous parcels were broken off as home sites for three Longfellow children, while the meadow toward the river, the last vestige of the estate, was laid out in 1887 (designed by Charles Eliot) and later given to the city as a park by the Association. (One stipulation of the gift was that the view to the south across the river would be forever kept open, a condition that eliminated a site on the south bank of the Charles as a possible location of the

117. LONGFELLOW HOUSE. ENTRANCE HALL

John F. Kennedy Library.) Today the house, park, and adjoining residences constitute one of the city's four historic districts.

The facade of the Longfellow house well illustrates High Georgian attempts to add distinction to the familiar five-bay, two-story elevation by adding ornamental features (Fig. 116). The center bay breaks forward to carry a pediment that interrupts the cornice of the projecting pavilion and main block. This scheme–used on a larger scale a few years later for Hollis and Harvard Halls (1762 and 1764)–adds visual interest to an otherwise simple building and provides a dignified focal point. Although nicely proportioned and harmonious in appearance, these features must be seen as applied decoration that does not grow out of the structure or plan of the building, since the entrance pavilion projects only 9 inches from the main block of the house and adds no appreciable depth to the entrance hall within. The only reason for the projection is to provide a shape on which one could plausibly apply the gable decorated as a Classical pediment along with supporting pilasters. Yet together these features create a strong visual accent which dignifies the entrance. Though bold and impressive in scale, the pilasters fail to meet discriminating architectonic standards. Theoretically a pilaster is a structural element placed at a corner for reinforcement; by moving it away from the corner–undoubtedly a subterfuge to obviate the need to repeat the pilaster on the side elevation–the theoretical reason for employing it is destroyed. Nor is the design of the entablature blocks over the capitals entirely satisfactory; since there is not enough room above the windows to carry a whole entablature, the lower two-thirds of that member is simply omitted. The purpose of these criticisms is not to belittle the design but to call attention to the process by which such High Georgian compositions were compiled. The confusion created by blinds that lack room to fold back flat against the wall cannot be blamed on the designer, for the shutters were probably added in Craigie's 1793 remodeling. At the same time, new windows appear to have been substituted for the originals; the present window frames are flat against the wall and the muntins are thinner than those used a generation earlier.



118. LONGFELLOW HOUSE. NEWEL

119. WADSWORTH HOUSE. NEWEL

...e frame of the front door derives from Plate 32 of Batty Langley's *The City ... Country Builder's and Workmen's Treasury of Design* (London, 1756) (Figs. ...-113). (In England, Batty Langley was somewhat "middle class;" aristocratic ...lders would have turned to Isaac Ware or Colin Campbell whose books were ...blished in more expensive editions.) Light for the Longfellow hall comes only ...m glass in the upper door panels, for side lights and elliptical fanlights were ...t introduced to New England until after the Revolution. It is interesting to ...te that the Lady Pepperrell mansion at Kittery Point, Maine, follows a very ...ar scheme, except that quoins close both faces of the outside corners, a ...newhat more satisfactory solution.

The center hall of the Longfellow house is dominated by a three-run stairway ...hose main axis parallels the hall (Fig. 117). The newel (which has been exten...ely repaired) is a complicated design consisting of opposing spirals, one fitted ...side the other; the balusters repeat three designs (Fig. 118). The handrail is ...gracefully leveled by means of an easing to meet the top of the newel and sweeps ...pward (a ramp) before joining the corner posts; the lines of the balustrade are ...peated in paneling on the stair wall. This fluid adjustment and elaboration of ...arts contrasts with the stockier, somewhat awkward designs seen at the Wads...worth house of 1726 (Fig. 119) and the Henry Vassall house of 1746 (Fig. 109).

Hallways extend through the center of the house but at midpoint a transverse ...wall divides them into a front and back hall, each with its own flight of stairs ...which almost mirror each other (Fig. 120). A window and door connect the two ...ndings. This unusual arrangement appeared in Cambridge as early as 1737 in ...e long demolished Hastings-Holmes house and is repeated at Elmwood (1767) ... at the Thomas Lee house (1803), and it seems to have been followed also at ...Apthorp House (1760), though this last staircase has been radically changed.

The first-floor rooms have splendid fireplace compositions set against fully paneled walls. The overmantels of three chimneys are composed of a single ...well-proportioned panel framed by moldings with crossettes (rectangular enlarge...ments at the corners), a solution replacing the Early Georgian raised panels and

120. LONGFELLOW HOUSE. PLAN

bolection moldings. The drawingroom overmantel is flanked by broad pilasters and crowned by a broken pediment; the chimneybreast is flanked by deep, paneled recesses covered with elliptical arches (Fig. 121), a feature formerly (until 1963, and no doubt originally) reproduced in Elmwood and in a simpler manner in Apthorp House. In the 19th century, the Longfellows substituted marble frames and iron grates for three early wooden mantels; though the fine marble mantelpiece in the parlor may be original. Although rare, marble mantels in 18th-century mansions are not unknown, as proved by those formerly in the Royall house in Medford and the Hancock house in Boston.

121. LONGFELLOW HOUSE. DRAWING ROOM

122. RUGGLES–FAYERWEATHER HOUSE, 175 BRATTLE ST., C. 1760. PHOTO OF C. 1910

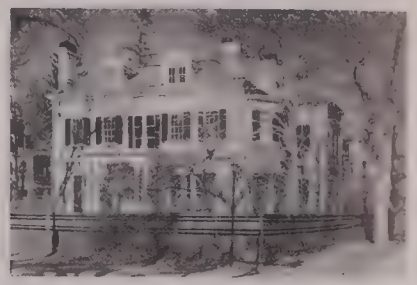
Along with the Longfellow house must be mentioned Apthorp House (1760), Elmwood (1767; Fig. 135), and the Fayerweather residence (c. 1766; Fig. 122). Without blinds and correctly painted in the traditional Cambridge colors of yellow and white, Elmwood gives the clearest impression of what the mid-Georgian builder was aiming at in exterior design. Although each house contains distinctive features, each follows the same basic four-room plan and essentially expresses the same architectural point of view. A difference from the Longfellow house consists in the facade of three stories in which windows on the top level are low in proportion in order to keep the composition from appearing top-heavy and to indicate the lesser importance of rooms there. A house type popular in seaports and known in Boston from the 1680's, this scheme appears to have been introduced to Cambridge when the Lee-Nichols house was raised one story, probably in the 1740's. The scheme soon became the paragon of fashion; Elmwood and the Fayerweather house repeat it; between 1765 and 1775 Apthorp House (originally a two-story design like the Longfellow house) was heightened to three. On a smaller scale the solution was frequently followed in Federal houses like Christ Church rectory (1820; Fig. 149).

Another mansion of High Georgian date is the Lechmere-Riedesel house at 149 Brattle (1761), but this unhappy building has been transformed beyond recognition (Figs. 123-125). In 1869 the house was jacked up one level and a ground story inserted, only to have the original second story (by then the third) and the roof removed in 1886, and the house moved from its original location at 145 Brattle Street.

Although the last of the city's High Georgian mansions was not built until after the Revolution and was destroyed by fire in 1839, the house of Francis Dana may be described as the culmination in Cambridge of High Georgian Palladian tendencies (Fig. 126). It stood on high terraces at 5 Dana Street, with a splendid view overlooking the Charles River and distant Boston. As seen in an old drawing, the entrance pavilion was framed by giant Ionic pilasters and the corners by quoins, but the central pediment did not rise enough higher than the supporting

123. LECHMERE–RIEDESEL HOUSE, 1761. PHOTO BEFORE 1869

124. LECHMERE–RIEDESEL HOUSE. DRAWING SHOWING 1869 ALTERATIONS. BEFORE REMOVAL FROM 145 BRATTLE STREET IN 1886



125. LECHMERE–RIEDESEL HOUSE, 149 BRATTLE ST., 1761, 1869, 1896

126. DANA HOUSE, 1785. 1806 VIEW. DEMOLISHED 1839

wings to avoid an effect of crowding. This composition was used later (1796) by Bulfinch for the Perez Morton house in Roxbury, where the detail seems to have been more delicate. (Dana–who did not inherit his fortune until just before the Revolution–built the house in 1785; patriot and Congregationalist, he carried out important diplomatic assignments in Russia during the Revolution and later served as ambassador to England and to Holland.)

127. THOMAS LEE HOUSE, 153 BRATTLE ST., 1803

The last of the High Georgian mansions on Brattle Street, the Thomas Lee house at number 153, illustrates another aspect of Cambridge architectural development (Fig. 127). When the worldly and at the same time aesthetically progressive Tories left Cambridge during the war, architecture came to a standstill. Instead of keeping up with new developments in Boston after the Revolution, townsmen clung to architectural forms to which they had become accustomed, as this house built as late as 1803 demonstrates. Oblivious of the architectural innovations of Bulfinch, the exterior illustrates the conservative tone of the community. Thus we find such features as the projecting entrance vestibule of the Lee-Nichols house, a cornice like that of the much simpler Read house, and the mirror relationship of front and back stairs used in several Cambridge mansions of the previous century. The interior, however, does evidence some awareness of new Federal tastes in the lighter scale of the dado and of the door and window trim of the front rooms.

In contrast to these mansions are eight mid-Georgian vernacular dwellings of conservative design and size. The John Hicks house, originally on Dunster Street but now located at 64 Boylston Street and serving as library for Harvard's Kirkland House, was built in 1762, three years after the Longfellow house (Fig. 128). Like other small houses, it employs the old-fashioned gambrel roof, probably because that allowed better headroom in the attic. The Hicks house also retains the Colonial center chimney and cramped, three-run stairs. It seems unlikely that the first-floor rooms were ever paneled, in spite of the fact that Hicks was a carpenter. Evidence suggests that the fireplace walls were framed for lath and plaster, which was becoming the fashionable treatment by 1760; at least one upper chamber has an original paneled fireplace wall. The present kitchen ell with its large colonial-size fireplace is not original, for an 1802 inventory indicates that the kitchen was then in the main block of the house. (The house that originally occupied the present site of the house was similar to the Hicks house, though one story lower; Fig. 37B.)

Somewhat larger in scale is the Aaron Hill house (c. 1754) at 17 Brown Street, moved there in 1867 from 99 Brattle. A gambrel-roofed, center-hall plan house, two rooms deep with two chimneys, it was converted into an apartment of three full stories when the new ground floor was added. The Watson house now

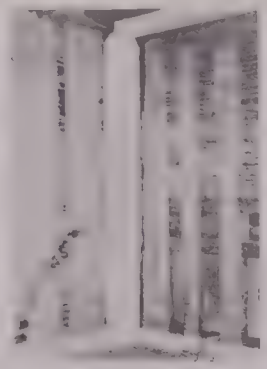
128. HICKS HOUSE, 64 BOYLSTON ST., 1762, 1928

located at 30 Elmwood Avenue stood until 1965 near the corner of Massachusetts Avenue and Russell Street in North Cambridge. Although its date is somewhat obscure from lack of original documents, it appears to have been built about 1757 by Daniel Watson and represents a prosperous mid-century farmhouse (Fig. 129). Single rooms of like size flank the center hall, and there was formerly a service ell, which could not be accommodated on the present site. The stairway employs in simpler form the same type of turned newel and balusters seen in the Wadsworth house, and the right parlor has good paneling, especially the shell cupboard (Fig. 130). The woodwork was originally painted a dull blue.

The Watson house provided valuable information about 18th-century construction methods when the fabric was taken apart to be moved in 1965 by R.A.R.E., now succeeded by Architectural Heritage, a non-profit firm that specializes in the preservation and restoration of old buildings. The construction of this house follows the same braced framing observed in the 17th-century Cooper-Frost-Austin house: there are eight posts, one in each corner of the two rooms (Fig. 131), set on a heavy sill laid upon the masonry foundation, connected by mortise joints at the second-floor level with six girts, and tied together at the third floor level by a continuous plate (the member that also carries the roof rafters). This framework of posts and beams, essentially like that used in barn construction, is firmly connected by mortise and tenon joints, a condition that makes it relatively easy to move. This type of construction transfers the entire floor and roof load to the posts, with the walls serving as non-structural barriers whose only function is to separate rooms and keep out the elements. Walls are constructed of a series of light, non-bearing studs which run in one-story lengths from sill to girt or girt to plate. These studs are set with long side to the wall (just the opposite from the way studs are placed today), and against them are nailed a sheathing of one-inch boards and on that the exterior clapboards. The space between the studs could be left empty or filled with an insulating material like non-bearing brick nogging, while to the interior face of the studs is nailed paneling or lathing for plaster. Because of the way the studs are placed, the wall itself is thinner than present-day walls using 4-inch studs, and for that reason window frames project further in front of the clapboards than we are accustomed to, sometimes as much as 2¾ inches. Although still present, the summer beam is no longer allowed to show beneath the ceiling, which is always plastered.

129. WATSON HOUSE,
30 ELMWOOD AVE., C. 1757, 1965

130. WATSON HOUSE. PARLOR



131. WATSON HOUSE.
CORNER POST

The Munro house at 8 Willard Street originally stood at 83 Brattle. Begun about 1725, rebuilt in the middle 1760's and with several additions since it was moved in 1908, it has a fine facade with second-floor windows shorter than those of the first, an unusual treatment in Cambridge (Fig. 132). The cornice molding broken out over each window frame—a feature also of the Watson house—is a well-finished detail, as are the crown moldings over the first-story windows. The entrance porch appears to have been added about 1820, and another entrance with a handsome leaded fan graces the rear (south) elevation. Post-Revolutionary in date, this doorway is in a wing added in 1916 and was undoubtedly brought here from some other old house by Lois Lilley Howe, a well-known Cambridge citizen and the first licensed woman architect in this country, who was responsible for the remodeling.

Dr. Benjamin Waterhouse's old dwelling at 7 Waterhouse Street is also the product of several building campaigns, and its facade has the same low eave line causing the lower moldings of the cornice to break forward over the projecting window frames. Begun about 1753 by Gideon Frost as rental property, the original dwelling was but "half a house" (Figs. 33-34); the right half was added sometime between 1781 and 1808, probably in the 1790's, while the present two-story entrance porch dates from 1848.

132. MUNRO HOUSE,
8 WILLARD ST., BY 1765, 1908

133. 20 GRAY GARDENS
WEST, 1798, 1930

James Read's house, built about 1772 and recently moved to Farwell Place, has already been mentioned in connection with the 17th-century beams in its cellar. A modest two-story house, it has a two-room plan with cramped three-run stairs in the entry and projecting window frames; originally it had a hip roof whose cornice was retained when the mid-19th-century ridge roof was added, giving the gables an unusual pedimented effect. The crowning glory of the design is the excellent Georgian doorway with rusticated pilasters, massive keystone, and heavy pediment. Inspired by Plate 33 in Batty Langley's *City and Country Builder* (London, 1740), the Read door demonstrates how long it took for English designs to be realized in America (Figs. 114-115).

The house at 20 Gray Gardens West was erected as the Hall Tavern in Duxbury in 1798 and was moved to Cambridge in 1930 (Fig. 133). Its shingled surfaces which would have been considered impossibly old-fashioned in Cambridge at that late date—contrast with the finely scaled door frame; the roof is steep for such a late date. Another example of migration, but this time away from the city, is represented by the Edward Marrett house that originally stood at 30 Dunster Street. Erected about 1760 as a combination residence and tailor shop, it was moved first to 77 Mt. Auburn Street in the 1870's, then to Manchester (Massachusetts) in 1926. Its paneling and stair-hall details are surprisingly elaborate for an artisan's house, and it shows the transition between Early and Middle Georgian woodwork, with raised panels and bolection moldings in one parlor and a crossetted overmantel and dentil cornice in another.

Several other Cambridge buildings go back to the 18th century, but they are too radically changed to be of interest as historic monuments. Two houses associated with the Wyeth family (inhabitants of Cambridge since the 17th century) have been changed beyond recognition. Ebenezer Wyeth's house at 36 Larch Road can be dated as early as 1751, but little now remains of the original except its frame; it was moved to the present location in 1915 when the Larchwood subdivision was laid out. Noah Wyeth's house at 107 Garden Street, was begun about 1782, probably doubled in size in 1804, evidently altered in the mid-19th century, moved in 1894, and drastically modernized in 1956. (A third Wyeth farmhouse, not built until 1838 and twice enlarged–once by President Eliot upon his retirement–stands at 17 Fresh Pond Parkway.)

The date of 106 Winthrop Street is a puzzle. A tenant house owned by Thomas Brattle was built on this site sometime between 1775 and 1801, but building activity taking place here in 1807 and 1848 completely modified the original structure: certainly its present external appearance dates from the mid-19th century. And, finally, two buildings erected during the last two decades of the 18th century to combine shops and living quarters stand at 1380-86 Massachusetts Avenue, the southeast corner of Boylston Street. Original framing is all of the old structures that can be left and that is concealed by repeated interior remodelings and a three-story wooden facade added in 1896.

The appended chart indicates the scant two dozen Old Cambridge dwellings that survive from the 17th-18th centuries.

High Georgian has without doubt been the style of architecture most frequently imitated by Cambridge house-builders over the last seventy-five years, and so many examples exist that it is impossible to mention all the excellent ones. It was not until 1890 or so that architects were interested in making fairly accurate copies of Georgian buildings, and one of the early examples stands at 22 Fayerweather Street, built as far back as 1898 as a slightly reduced version of Elmwood (Figs. 134-135). An unusually large and impressive example is at 17 Fresh Pond Parkway; actually, the nucleus of this building is a late Federal farmhouse (1838), drastically changed and enlarged in 1927 by Joseph E. Chandler, a specialist in Georgian design who was often consulted in the restoration of 18th-century buildings. Closer to British prototypes is the same architect's three-story brick mansion designed in 1911 for Edward Forbes at Gerry's Landing. Equally competent exercises in Georgian Revival design are several masters' residences of the Harvard houses built in the late 1920's.

The changing conditions of modern life have left unmistakable marks on recent architecture, and in no place is this more clearly reflected than in attempts to reproduce the Georgian manner. With the shortage of domestic help, houses have become smaller; with drastic increases in the cost of skilled labor, the time required to produce fine Georgian detailing has become prohibitively expensive. Instead of carefully crafted wood trim, scaled and composed for the specific building, designers have been forced to turn to cheaper stock designs, which every decade become more summary and dull. In the 18th century it was the quality of the craftsmanship that gave integrity to work of that period. Now, under the pressure of modern economy, when this workmanship is no longer obtainable, one wonders why designers attempt to reproduce the style.

134. ELMWOOD, 33 ELMWOOD AVE., 1767

135. 22 FAYERWEATHER ST., 1898. H.D. HALL

136. 146 BRATTLE ST., 1939. WILLIAM DUGUID

Beginning in 1917 one can observe a steady decline and impoverishment of Georgian Revival design, a process so gradual and so protracted that some people seem not to realize what has happened–otherwise, they would not continue to transfer the romantic associations of bygone Georgian design to recent inept attempts at invoking that style. The last and one of the best houses in Old Cambridge that deserves the term Georgian Revival stands at 146 Brattle Street, designed in 1939 by William Duguid, of a firm that specialized in the Georgian style, whose work is of a consistently high level (Fig. 136). Yet, even here the double garage at the front reminds us of another fact of modern life with which our 18th-century forbears did not have to contend.

Pre-1800 Buildings

Owner/builder	Dates	Present location	Original location
Large houses			
1. Cooper-Frost-Austin	c.1691, c.1718, c.1720, c.1810, 1830, 1912	21 Linnaean St.	
2. Lee-Nichols	c.1685, 1716, c.1745, c.1760, 1860, 1916	159 Brattle St.	
3. Benjamin Wadsworth (Wadsworth House)	1726, 1783, 1810	1341 Massachusetts Ave.	
4. William Brattle	1727, 1891, 1955	42 Brattle St.	
5. Henry Vassall	1637(?), 1746, c.1825	94 Brattle St.	
6. Vassall-Craigie-Longfellow	1759, 1793	105 Brattle St.	
7. East Apthorp (Apthorp House)	1760, by 1775, 1930	10 Linden St.	
8. Lechmere-Riedesel	1761, 1869	149 Brattle St.	145 Brattle St.
9. Ruggles-Fayerweather	c.1766	175 Brattle St.	
10. Oliver-Gerry-Lowell (Elmwood)	1767	33 Elmwood Ave.	
Small houses			
11. Ebenezer Wyeth	c.1751, 1915	36 Larch Road	
12. Gideon Frost-Benjamin Waterhouse	c.1753, c.1790, 1848	7 Waterhouse St.	
13. Aaron Hill	c.1754, 1867	17 Brown St.	99 Brattle St.
14. Daniel Watson	c.1757, 1965	30 Elmwood Ave.	5 Russell St.
15. Edward Marrett	c.1760, c.1870, 1926	Manchester, Mass.	30 Dunster St.& 77 Mt. Auburn St.
16. John Hicks	1762, 1928	64 Boylston St.	64 Dunster St.
17. James Munro	by 1765, 1908	8 Willard St.	83 Brattle St.
18. James Read (Read House)	c.1772, 1969	Farwell Place	55 Brattle St.
19. Thomas Brattle (tenant house)	1775-1801(?), 1807, 1848(?)	106 Winthrop St.	
20. Noah Wyeth	c.1782, 1804, 1894, 1956	107 Garden St.	
21. Joseph S. Read	c.1782-97, 1896	1380-82 Massachusetts Ave.	
22. Joseph S. Read	c.1786-1800, 1896	1386 Mass. Ave.- 4 Boylston St.	
23. "Hall Tavern"	1798, 1930	20 Gray Gardens West	Duxbury, Mass.

137. VIEW OF WASHINGTON ELM FROM COMMON BEFORE 1861.
AT LEFT: FAY HOUSE, 1807. CENTER: WASHINGTON ELM, C. 1700, REMOVED 1923.
AT RIGHT: ABRAHAM HILL HOUSE, C. 1718, DEMOLISHED 1863

Federal

Often called Federal, the Late Georgian style was introduced to Boston about 1790 by Charles Bulfinch after his prolonged trip abroad. In England he had admired the work of Robert Adam, and this knowledge inspired his subsequent work at home. Although employing the traditional house plan and essentially the same vocabulary of decoration as the Georgian, the Federal manner lightens and refines them and moves toward a restrained Classicism in much the same way as did Adam or work done in France under Louis XVI. More discriminating than High Georgian, Federal design shifts emphasis from superficial decoration to more fundamental concerns like geometric form, the proportions of parts, and their relation to the whole. Instead of applying decoration to a building, Federal accents grow out of it; the walls of the building and the planes that describe its geometry become important and convey a quality of abstract, geometric clarity which the earlier, more cluttered compositions lacked.

In the absence of local sponsors, the new Federal style was slow to reach Cambridge. We have seen, for instance, that the Thomas Lee house was built as late as 1803 in the mid-Georgian manner (Fig. 127); although the interior displays some awareness of Federal forms, this dwelling demonstrates the unprogressive quality of much building sponsored by Cambridge inhabitants. Such up-to-date houses as were erected were for owners who had Boston associations, like John Phillips or Nathaniel Ireland.

138. FAY HOUSE, 10 GARDEN ST., 1807, 1890

Despite the severe economic depression resulting from the Jefferson Embargo of 1807 and the War of 1812, eight good-sized early 19th-century houses were erected in Cambridge. Two of these have been destroyed, others modified to some degree, some changed beyond recognition. Demolished in 1915 to make way for St. Paul's Church on Bow and Arrow Streets, William Winthrop's three-story, four-square mansion dated from 1811; on the same site it had been preceded by two important earlier houses: Daniel Gookin's 17th-century dwelling and one built about 1725 by Spenser Phips. Pulled down in 1955 by Harvard was Shady Hill, built in 1806 by John Phillips, the first mayor of Boston, and one of the city's finest treasures. Standing on a 32-acre estate between the Somerville line and Kirkland Street, it had been the home of such notable citizens as Charles Eliot Norton and Paul Sachs, and its loss cannot be too much deplored. Still standing but almost unrecognizable is Andrew Bordman's country house (1805) near the corner of Hampshire and Windsor Streets in Cambridgeport. The original stairway and almost all traces of the interior trim were lost when the house was cut into apartments, and the once spacious lawns are now crowded with stores and tenements.

Drastically modified but still conveying something of its Federal appearance is John Appleton's spacious house at 163 Brattle Street, built in 1810, enlarged in 1891; fortunately the elevation seen from the street is the least changed. But the finest of all when it was built, and more comparable to houses on Beacon Hill, was the brick mansion erected in 1807 for Nathaniel Ireland, a Boston iron merchant, now better known as Radcliffe's Fay House (Figs. 137-138). This edifice has been almost entirely rebuilt: the facade faced with new brick, a third story added, the original structure engulfed by two new wings. Enough remains of the facade on the Common to show the Federal taste for sheer wall surfaces and clear geometric massing, the latter quality especially conveyed by the broad elliptical bays that terminate the east elevation and mark the entrance pavilion. The arrangement of a front door set in a central elliptical bay appears to have influenced the later design of two important Cambridge mansions: Oliver Hastings' house of 1844 at 101 Brattle Street (Fig. 169)—the entrance was later moved to a side location—and Charles Valentine's 1848 house at 125 Prospect

139. FAY HOUSE. DRAWING ROOM

Street, near Central Square (see *Mid Cambridge*, page 54). Despite exterior changes, Fay House retains a fine elliptical drawing-room, a sophisticated space of a kind often included in Federal houses in Boston but apparently too advanced to be copied elsewhere in Cambridge (Fig. 139): the folding doors into the hall and the inside shutters have a concave section to maintain the curve of the walls. In original condition this house would have illustrated Federal concepts of design as admirably as the Longfellow house does High Georgian.

Better preserved than the above but hardly textbook examples of Federal buildings are the Widow Orne's house at 10 Coolidge Hill Road and the Asa Gray house at 88 Garden Street. Initially built in 1807 as her son's store on a different site, the Orne house was moved and enlarged two years later and is unusual in the presence of a porch across the main facade and the roundheaded stair window above it. The main stairway is good; there were some mid-19th-century interior changes, and the entrance on the south elevation is new. The Garden Street house retains original features like the low hip roof surrounded by a balustrade, crisp cornice, entrance framed by side and fanlights, and flush siding (Fig. 140). But the composition and some of the details are heavy for 1810, while corner pilasters encumber the facade in a High Georgian manner and reduce the impact of its geometric composition. Nevertheless, when compared with the same compositional element at the Longfellow house (Fig. 116), a degree of Federal flatness and lightness can be detected here, and one must even admit that Bulfinch's pilasters on University Hall (1813) are rather heavy. Originally built to face Linnaean Street as Harvard's Botanic Garden House (Fig. 141)—where Kittridge Hall now stands—the Asa Gray house (including large side and rear wings added in 1848) was moved to its present site in 1910. As the home of Asa Gray, a famous botanist, in addition to being the first known design by Ithiel Town—the New Haven builder, inventor, and architect who later achieved prominence in New York City—this house has considerable historic significance. In the attic an interesting method of supporting the hip roof can be seen; from one massive "roof tree" six braces branch out to support the major rafters which frame the roof (Fig. 142). One is reminded that later it was Town who devised and patented a prefabricated wooden bridge truss, an invention that brought him a considerable fortune.

140. ASA GRAY HOUSE, 88 GARDEN ST., 1810, 1848, 1910

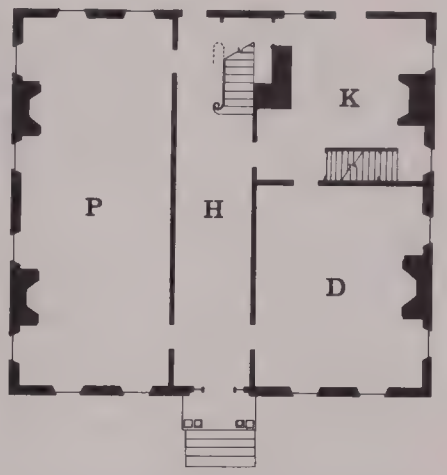
141. BOTANIC GARDENS IN 1866–67. FROM LEFT: ASA GRAY HOUSE (BOTANIC GARDEN HOUSE); HERBARIUM, 1864, DEMOLISHED 1914

142. ASA GRAY HOUSE. ROOF FRAMING

The city's best remaining representative of Federal design is The Larches, begun for Jonathan Hastings in 1808 and finished after 1810 by William Gray of Salem as his country home (Fig. 143). The Federal qualities of the design are more apparent in a drawing of 1913 before the original clean-cut, geometric form had been obscured by alterations of 1915. Very important to the original scheme were the side porches, whose roof lines echoed the hip roof of the main block; their removal puts unintended emphasis upon the corner quoins in a somewhat High Georgian manner, while the addition of dormer windows and encircling balustrade diminishes the contribution of a crisply defined hip roof to the building's geometric shape. In other words, the surface encrustation conveys a feeling that the designer is still compiling decorative details in the manner of an earlier Georgian housewright. The absence of long windows on the ground story is also unusual for Federal work, but it has been discovered that there were once floor-length windows opening onto the side porches.

143. THE LARCHES, 22 LARCH RD., 1808. ELEVATION PUBLISHED 1913 BEFORE 1915 ALTERATIONS

144. THE LARCHES. ENTRANCE



145. THE LARCHES. PLAN

More characteristic of The Larches' early 19th-century date is the slope of the hip roof and a delicate cornice with fretted dentils and mutules lightened by a pattern of drilled holes. This latter feature has close analogies to designs published by Asher Benjamin and Daniel Raynerd in the *American Builders Companion* in 1806, two years before the house was begun. The entrance has appropriate side lights and a graceful elliptical fan, while the porch is supported by eight fluted columns with papyrus-leaf capitals (Fig. 144).

The interiors of The Larches achieve an elegant simplicity that constitutes the best Federal period work remaining in Cambridge (Figs. 145-147). The impression made by the entrance hall is somewhat tight because of its great length. This circumstance forces attention toward the hall's main features: the graceful flight of stairs rising in a semi-circle and the easy sweep of the handrail tightening as it curls around the simple scrolled newel. The chaste lines of this newel contrast

146. THE LARCHES. ENTRANCE HALL

147. THE LARCHES. STAIRS

148. THE LARCHES. LEFT FRONT PARLOR

sharply with the intricate swash-turned spiral newels of High Georgian preference discussed earlier. Doors on both sides of the hall are capped by delicate friezes of molded plaster glued to the wood; when painted, this applied decoration cannot be distinguished from carved relief. The marble floor is modern.

The two drawing-rooms originally constituted a single large ballroom with mirrored windows on the inner wall, a feature Bulfinch had employed in Mrs. Swan's country house in Roxbury and in a modified form (mirrored panels on doors) in the first Harrison Gray Otis house in Boston. The woodwork is light and elegant in scale and the proportions and details of the two mantels are delicate and restrained where the High Georgian would have been robust (Fig. 148). The proportions of the original room were somewhat spoiled when the dividing wall was inserted, so that now the mantels stand off center. Cornices in principal rooms are carved in wood.

1800-1833 Buildings

Owner/builder	Dates	Present location	Original location
1. Joseph Holmes	1801, 1929	144 Coolidge Hill Road	15 Appian Way
2. Thomas Lee	1803	153 Brattle St.	
3. Cox-Hicks	1806	98 Winthrop St.	
4. Nathaniel Ireland-Samuel P. P. Fay (Fay House)	1807, 1890	10 Garden St. (Radcliffe Yard)	
5. John Orne (store)-Sarah Orne	1807, 1809	10 Coolidge Hill Road	cor. Mt. Auburn & Fresh Pond Pkwy
5a. Sarah Orne (service ell)	1809, 1936	8 Coolidge Hill Road	10 Coolidge Hill Road
6. Torrey Hancock-Dexter Pratt	1808	54 Brattle St.	
7. William Gray (The Larches)	1808, 1915	22 Larch Road	245 Brattle St.
8. Asa Gray by Ithiel Town	1810, 1848, 1910	88 Garden St.	79 Garden St.
9. John Appleton-Charles Little	1810, 1891	163 Brattle St.	
10. Elizabeth Frost (tenant house)	1812, 1842-50	35 Bowdoin St.	nr. 1700 Massachusetts Ave.
11. Jacob H. Bates	1813, 1926	11 Hawthorn St.	45 Brattle St.
12. David Frost	1815, 1889	26 Gray St.	1705 Massachusetts Ave.
13. Joseph Holmes	1820, 1963	13 St. John's Road	14 Appian Way
14. Daniel Dascomb	1820, 1902	46 Dunster St.	
15. Levi Farwell (tenant house)	1820	10-14 Boylston St.	
16. William Saunders by William Saunders	1820	1 Garden St.	
17. William Bates	1821, 1875	38 Bradbury St.	73 Brattle St.
18. John Chamberlin	1821	77 Brattle St.	
19. Henry Nowell	1823, 1858	19 Ash St.	76 Brattle St.
20. Stephen Wyeth	1823	5-7 Hilliard Place	
21. Josiah Coolidge	1822-25, 1900	24 Coolidge Hill Road	nr. junction of Coolidge Hill W. & I
22. E. & S. Stedman Co.	1820, 1826	17 South St.	
23. Torrey Hancock	1827	53 Church St.	
24. John Nichols by Oliver Hastings (Nichols House)	1828, 1969	Farwell Place	63 Brattle St.
25. E. & S. Stedman Co. by Oliver Hastings	1829	69 Dunster St.	
26. Levi Farwell (?) - Thomas Russell (store)	c.1830	12 Bow St.	1 Brattle St.
27. Oliver Hastings	1831	1564 Massachusetts Ave.	
28. Maurice Connor	1832	8 Eliot St.	

149. SAUNDERS HOUSE, 1 GARDEN ST., 1820. WILLIAM SAUNDERS

150. 144 COOLIDGE HILL ST., 1801, 1929

Out of 168 dwellings in Old Cambridge shown on the Hales and Wadsworth maps of 1830 and 1833, 51 were surviving in 1970, 23 of them from before 1800. There are obviously too many examples to permit comment on each but, in keeping with the procedure established in the first two Cambridge reports in which pre-1830 buildings are indicated on maps, a complete list is appended of surviving houses erected 1800-33. A listing of the 17th-18th-century survivors is given earlier in this section.

Aside from being too numerous for individual comment, many of these houses are vernacular designs of which one example may be considered as representative of another. Earlier reports in this series have shown that houses of the period almost invariably have two or four rooms to a floor, the rooms being arranged symmetrically on either side of a central hall with a service wing appended to the rear or side. A third plan, using a side hall, was just coming into use in the late Federal period and was not as common as it would be a few decades later. Since both two- and four-room plans are found in houses ranging from one to three stories to the main cornice, considerable variation in size was possible without changing the basic room layout. Thus, 1 Garden Street (Christ Church rectory, 1820; Fig. 149), 144 Coolidge Hill (1801; Fig. 150), 17 South Street (1820, 1826; Fig. 151) impart very different impressions, though all conform to the same two-room center-hall-plan. Because it was only one room deep, the plan could be adapted to a narrow lot by turning the main entrance toward the side yard while placing the service ell on one side at the rear of the lot; for example, 77 Brattle Street (1821; Fig. 63) and 26 Gray Street (1815) are basically the same house, though from the street the appearance is very different.

151. 17 SOUTH ST., 1820, 1826

152. 29 FOLLEN ST., 1838. PORCH DETAIL

153. 4 WILLARD ST., 1904. E.W.A. MACHADO

A pleasant variation on the center-hall type places swell-front bays on either side of the entrance, emphasizing the geometric statement made by the building. The Nichols house (1828) on Farwell Place well illustrates this point in spite of the fact that the front porch (which is original) somewhat obscures the effect of the bays. Similar bow fronts exist at 29 Follen Street (1838; Fig. 152), a charming Greek Revival example that retains a Federal lightness of detail, and at 26 Garden Street (built in 1841 but greatly remodeled in 1897). Despite the bow fronts, these elliptical shapes are not reflected inside the houses on the rear parlor walls as at Fay House (Fig. 139).

The early 20th century produced a number of copies of Federal period designs so carefully done that one must look closely to recognize their later date. Number 4 Willard Street (1904; E.W.A. Machado) employs flush siding and diminished windows on the third floor in an appropriate Federal manner (Fig. 153). Its later date is indicated, however, by the detailing of the entrance porch and side lights, and an irregular placement of side windows and chimneystacks necessitated by the more flexible arrangement of rooms inside. Comparable houses stand at 48 Hawthorn Street (1900; Lois Lilley Howe) and at 144 Brattle Street (1913; John Ames). A still finer example is 59 Fayerweather Street (1906; Winslow and Bigelow). Built two decades later and therefore more modest in scale and detailing is a pleasant enclave of four houses at 59-65 Foster Street, designed in 1927 by M. and W. Duguid.

Mid-Century Revivals

Greek Revival

In the second quarter of the 19th century the United States possessed in the Greek Revival what almost constituted a national style of architecture. While not absolutely dominant, this style commanded a near consensus of approval. Stronger and earlier in the Middle Atlantic and Southern states, the style nevertheless took root in Cambridge by the late 1830's and its heyday here was the 1840's. Once local builders had accustomed themselves to the tradition, they clung to it tenaciously. Even on the outbreak of the Civil War, the Greek Revival was present in vernacular building, and as late as the 1880's an occasional house retained a trace of the style.

Whereas several splendid Greek Revival houses were built in other parts of the city, the area covered by this study now lacks a representative mansion. Photographs are preserved, however, of the old E.A. Chapman residence of 1838, which faced Eliot Square, a site now occupied by the Coolidge Bank (Fig. 154). A standard temple-house with two-story portico, this building was comparable to 38 Kirkland Street (1839) and handsomer than Gannett House of Harvard Law School (1838), buildings discussed in *Mid Cambridge*. It is also true that two large farmhouses were erected by members of the Coolidge family at the extreme southwest corner of town: one for Josiah Coolidge at 12 Lake View Avenue (built in 1846, drastically enlarged in 1893, and remodeled several times since), the other for Joseph Coolidge in 1856 at 141 Coolidge Avenue; but neither of these had a portico.

Three institutional buildings had temple fronts: Dane Hall, the first building erected for Harvard Law School in 1832, the Lyceum of 1841 on the present site of the Harvard Coop (Fig. 17), and the first building for the Old Cambridge Baptist Church (1845) which stood on the site of Littauer Center. The last also had an especially fine spire surrounded by columns (see *Mid Cambridge*, page 37).

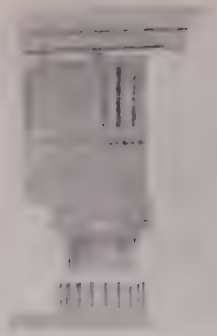
No temple-houses were built in the Brattle Street area because this district was in transition during the thirties and forties. There was no space left for putting together new country estates, and the demand for lots was not yet great enough to induce owners of old estates to subdivide them; successful businessmen who would build large homes on moderate-sized lots could find desirable locations on Dana Hill or along Massachusetts Avenue, nearer their places of business.

The northwestern part of Old Cambridge was somewhat more ready for development because it was convenient to the Porter Square railroad station and thus within easier commuting distance of Boston. Two good-sized Greek Revival houses were built on North (Massachusetts) Avenue: one the William Saunders house (1843), now moved to 6 Prentiss Street, the other the Stillman Willis house (1839) at 1740 Massachusetts Avenue, subsequently (1883) moved back to its present location at 1 Potter Park and subjected to an extraordinary "modernization" (1883 and 1904; Fig. 155) in which elaborate ornamentation overwhelms the simple lines of the old house.

154. CHAPMAN HOUSE, ELIOT SQ., 1838. DEMOLISHED 19

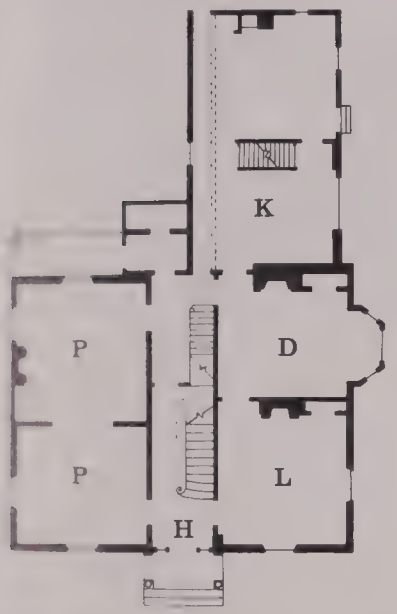
155. 1 POTTER PARK, 1839, 1883, 1904

156. 9 FOLLEN ST., 1844



157. DORIC ORDER. FROM BENJAMIN, *THE PRACTICAL HOUSE CARPENTER.* (1854 EDITION)

158. TEMPLE OF THESEUS AT ATHENS. FROM STUART AND REVETT, *THE ANTIQUITIES OF ATHENS.* (1827 EDITION)



159. 9 FOLLEN ST. PLAN

An impressive representative of Greek Revival design, though not a temple-house, is the beautifully preserved dwelling at 9 Follen Street, built in 1844 by Charles Saunders for Mrs. Benjamin Waterhouse (Fig. 156). In 1853 it was bought by the Bowen family whose last member, Miss Maria Bowen, willed it to the Cambridge Historical Society by whom it was later sold with appropriate provisions for preservation. The stocky, forthright character of this house creates a telling contrast to the light, sheer qualities of the earlier Federal idiom. The juncture of roof and facade is emphasized by a full entablature of substantial projection, and there is considerable space between the tops of the windows and the eaveline—quite a different effect from that of the low cornice and crisp

160. 9 FOLLEN ST. PARLOR

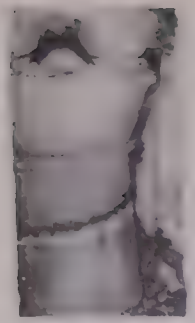
161. 9 FOLLEN ST. STAIRS

moldings found in Federal work. The sturdy quality of the composition is further emphasized by corner pilaster strips and heavy window frames enlarged by crossettes.

The entrance porch is carried on Doric columns of good design—these recall the great value placed by architects and critics of the period on the accuracy with which Classical forms were reproduced. A standard mill product, wooden columns like these were manufactured in varying lengths and in conformity with the three orders. Although the Yankee carpenters who built these houses or fabricated the columns probably had little knowledge of the architecture of Greece, they could copy "correct" Classical details, profiles, and proportions from current handbooks like Asher Benjamin's *The American Builder's Companion*, which included plates illustrating the orders in the fifth and sixth editions of 1826 and 1827 (Fig. 157). Benjamin, who had never been to Europe, derived his information, in turn, from authors like Stuart and Revett who had measured Greek temples and published careful drawings as early as 1762 in magnificent books like *The Antiquities of Athens* (Fig. 158).

Slight modifications in plan of the Follen Street house tend to relax the monotonous symmetry of the four-room, center-hall, Georgian plan (Fig. 159). Though chimney placement and equal size of rooms to the right of the hall (used for dining-room and library) are traditional, the partition between the two parlors on the left has been moved forward to create a small front reception room and a large rear parlor. The smaller room lacks a fireplace, which would have been an unusual arrangement in a Georgian house, but the two rooms are connected by large double doors so that they could be thrown together for entertaining. The parlor mantel is ingeniously centered on an outside wall so that its chimney will not prevent an equal division of space between the bedrooms on the floor above (Fig. 160).

The interior woodwork is heavier in scale than Federal trim would have been: moldings have a bold profile and lintels a slightly pedimented outline. Doorway trim shows this treatment although details of the stairway retain the proportions of Federal preference (Fig. 161). Wooden paneling—even for wainscoting—had



162. 9 FOLLEN ST. CAST-IRON FURNACE INSIDE BRICK VAULT, 1853

gone out of fashion, but principal rooms displayed heavy plaster cornices. Since Cambridge lacked a plant to produce illuminating gas until 1852, 9 Follen Street was not originally equipped with gas fixtures. Like most Cambridge houses of the period, it contains several marble mantels; these appear to be commercial products turned out by local stone-yards and, though monumental-looking, they are reasonably portable, having been assembled from several thin slabs of precut marble. It is interesting to note the hierarchy of designs, which range from a beautiful specimen of black veined marble in the parlor to a delightfully simple one in the main bedroom. Less important chambers have wooden mantels, while third-floor rooms have only a shelf above a stove outlet.

Of historic interest at 9 Follen Street are traces of the early heating and sanitation arrangements. Although the house originally had no central heating, a furnace was installed toward mid-century, perhaps when the Bowens bought the house in 1853. No longer in use, the old hot-air furnace consists of a cylindrical fire chamber of iron, enclosed in a brick vault spanned by brick arches carried on iron beams (Fig. 162). The air warmed in this vault was probably led through ducts to floor registers in rooms on the main floor, but as the ducts and the soapstone floor registers have been removed, it is difficult to know just which rooms were heated. (Frequently houses of the period had no heat on the second floor and in the attic almost never.) Nor, at first, was there a bathroom; a double privy situated on the ground floor at the rear of the service wing was reached from the back hall by a narrow inside passageway. Though the privy was removed, the blocked-up door to it remains, as well as traces of the passageway partition. Until the city built a pumping station and reservoir in 1856, water was obtained from private wells. Even after waterclosets had become usual in Cambridge houses, they were long confined to the rear of the second-floor ell, an inconvenient location doubtless derived from the usual position of the old privy on the ground floor.

Even more common than center-hall houses are Greek Revival dwellings employing a side hall, a type of plan that enjoyed great popularity during the middle third of the century. The handsomest example in Old Cambridge was built at 112 Brattle Street in 1846 by the housewright, S.D. Brown (Fig. 163). An enlargement of this well-maintained house was so skilfully done between 1873 and 1886 that it is difficult to distinguish newer from original work. (Another enlargement dates from 1949.) Fortunately the handsome facades were little changed. Characteristic of the Greek Revival is the gable treated as a Classical pediment and, the better to simulate an ancient pediment, the sloping eaves

163. 112 BRATTLE ST., 1846, 1873–86, 1949. S. D. BROWN

164. 112 BRATTLE ST. ENTRANCE

165. "GRECIAN FRONTISPIECE." FROM SHAW, *THE MODERN ARCHITECT,* 1859

treated as a raking cornice, while three sets of moldings are carried horizontally across the gable to form a full entablature. The heavy Classical proportions and strong, three-dimensional forms of this composition contrast with sheer Federal gables that carry only a cornice and seldom return across the facade. In order to recall the masonry construction of the Greek originals and for visual emphasis, the tympanum is filled with flush siding, while the facade is framed by wide corner boards transformed into pilasters by the addition of capitals built up of wooden moldings.

The entrance composition is enclosed by smaller pilasters with sunken panels rather than fluting, but with capitals similar to those at the corners; the shallow vestibule opening is crowned by a pedimented lintel and handsome molded acroterion (Figs. 164). The entry has side lights and the door heavy proportions with two vertical panels; (this design is comparable—though earlier in date—to Plate 4 of the 1859 edition of Edward Shaw; Fig. 165). Ornaments like the acroterion seen here or other details like wreaths or rosettes were manufactured in quantity from mastic or cast iron; when applied to wooden fascia and painted they looked like carved wooden ornamentation. On the Brattle Street elevation a shallow porch supported by stock Doric columns runs the length of the house, egress to the porch being provided by floor-length 6/6/6 windows.

166. 99 GARDEN ST., 1841

78 MT. AUBURN ST., 1839

168. 53 DUNSTER ST., 1841

inconsistency between preoccupation with an accurate reproduction of ek detail and the extraordinary liberties taken in adapting the temple form to erviceable 19th-century dwelling troubled the Yankee builder not one bit. contradiction creates a tension and endows Greek Revival architecture with harming variety and vitality. Instead of the pedantic sameness one might pect from so many buildings modeled after the standard temple, one discovers pressible ingenuity and imagination. In vernacular building this is illustrated the endless variety of single and double houses. As this subject was discussed length in *East Cambridge*, where the style is widely represented, it need not be peated here, except to point out the striking contrasts in size and appearance Old Cambridge houses employing the same basic side-hall plan: the Mary Wyeth house (1841; Fig. 166) at 99 Garden Street of a single story, a house at Mt. Auburn Street (1839; Fig. 167) of two stories, and 53 Dunster Street 41; Fig. 168), containing three full stories to the main cornice. All emphasize pedimented gable and employ some kind of porch. Similar variety exists ong double houses at 42-44 Avon Street (1849) and 52 Martin Street (1849).

169. HASTINGS HOUSE, 101 BRATTLE ST., 1844, 1888–92. OLIVER HASTINGS

Vernacular examples of the style are often so simplified that they keep only the sturdy projection of the cornice, simple corner boards, and a pitch of roof that is steeper than Federal roofs but somewhat less steep than that employed in vernacular Bracketed work a decade later. Usually the entrance will be flanked by side lights. Almost devoid of recognizable traits is 109 Avon Hill Street, built as late as 1887, where the horizontal cornice was not even returned under the gable. Very nearly as simple is the cottage at 21 Gibson Street (1860), which turns its back to the street (because it was built before the street was cut through) and which originally housed two families, despite its diminutive size.

An important variation on the Greek Revival theme is the broad-pilastered design. Confined for the most part to the neighborhood of Boston, the type is also found occasionally along the Maine coast near Portland. A fine local example is the Jared Sparks house of 1838, moved in 1968 from Quincy Street to 21 Kirkland Street and splendidly restored by Harvard (Fig. 187). Although this house stands outside the present survey limits, it was nevertheless a part of the Old Cambridge community and requires mention here. Devoid of capitals or other encrustation, the design has an academic clarity which maintains a subtle equilibrium between recessed panels around the openings and projecting sections of wall that read as unusually wide pilasters; capped by a simple hip roof, it has no pediments or pavilions to detract from the cube-like mass. All these traits impart an abstract clarity somewhat like that found in Federal-period design, except that the forms of the Jared Sparks house have much sturdier proportions. It is evident that this idiom also owes a great deal to earlier Regency work in England.

Two other good broad-pilastered houses stand on Brattle Street: 101 (1844; Fig. 169) and 170 (1852; Fig. 170) which originally stood at 2 Phillips Place. Curiously enough both houses were built by Oliver Hastings and are now owned by

170. 170 BRATTLE ST., 1852, 1967

171. 25 CRAIGIE ST., 1856, 1904

Episcopal Theological School. Hastings' own house (101 Brattle) with its lavish use of cast-iron balconies and trellises combines Regency influence with local usage to produce one of the most notable houses on Brattle Street. Much changed in 1888 and 1892 when side wings were added, the interior was altered beyond recognition in 1964. The original entrance was in the elliptical bay of the main facade, a scheme apparently inspired by Fay House (1807; Figs. 137-138) facing Cambridge Common. Coarser in detail and proportion than Hastings' own house, but like it in the use of flush siding and a monitor roof, 170 Brattle Street has a clumsy detail cornice, and its service wing, though already attached to the house when it stood on Phillips Place, looks like an afterthought.

Interesting variations of the broad-pilastered type are found at 25 Craigie (1856; Fig. 171) and at 121 Brattle Streets (1843). In these houses, however, the extreme projection of the cornice destroys the suggestion of a Greek pediment and anticipates the Italianate manner. Smaller houses that illustrate an intermediate position between the two styles are 32 and 38 Avon Street (1855, 1854) as well as 15 and 17 Hilliard Street (1847, 1855).

The nearest thing to a 20th-century Greek Revival "revival" is 7 Longfellow Park. But what looks like a normal center-hall house turns out to have begun life in 1846 as a "half house," i.e., one of side-hall plan. It was enlarged to its present size in 1914 by Allen Jackson who "revived" the style of the original house.

In this country, Gothic Revival is complicated because the prototypes in England and on the Continent were so varied, because American knowledge of them was at second hand, and because the mode they imitated had little to do with established Yankee traditions. The first attempts at Gothic in this country, which derive from English examples like Strawberry Hill (1750-90), were not much more than a stage set composed of shapes that looked vaguely Medieval because they employed pointed arches. Instead of being derived from structural needs, the Gothic element here was only an ornamental skin. Such make-believe Gothic is often called "Gothick" or Folk Gothic. Later, following the writings and practice of certain British designers like Pugin and Butterfield, American builders were able to produce a more plausible version of Gothic, but this does not appear in Cambridge until after the Civil War.

The earliest Cambridge attempts at Gothick are seen in buildings like the First Parish Church (1833; Fig. 302), the chapel at Mt. Auburn Cemetery (1843; Fig. 93), and Harvard's first library, Gore Hall, built in 1838 (see Part Six). The best surviving domestic counterpart of such work is the residence at 85 Brattle Street built in 1847 by Michael Norton (Fig. 172). Though this delightful "Tudor cottage" is of timber, its flush siding is scored to resemble ashlar and originally, no doubt, the freshly painted surface was dusted with sand to suggest the texture of stone. (We know from documents that this was the case for First Parish Church.) Decorative bands recalling the profiles of stone drip moldings are placed over openings.

In a deliberate attempt to break away from the blocklike symmetry of the old Georgian tradition, the mass and silhouette of 85 Brattle Street are complicated by a number of small projections: the entrance vestibule stands off center; the eave line is broken by dormer windows that jut in front of the wall and are supported by brackets; a gable thrusts forward from the main facade enlivened by a tall, rather tight bay window. Yet the habit of balancing an elevation, ingrained by 150 years of Georgian instruction, was too strong to be discarded at once, and essentially the mass of this house is stiffly cross-shaped with a gable centered on each facade.

The interior of 85 Brattle is quite unlike its exterior and illustrates the basic uniformity in vernacular work of mid-century date no matter what style the outside (Figs. 173-174). Painted white, the wood trim and moldings are interchangeable with those found in contemporary houses of Greek Revival design. Interior doors employ the currently popular twin vertical panel design, and the stairway spirals gracefully to the second floor and employs the familiar scroll newel and simple balusters. Parlors contain stock marble mantels. Comparable mantels, Greek interior trim, and a rather similar stairway are found in the charming Gothic-gabled, Greek-porched cottage (1841) at 7 Dana Street, described in *Mid Cambridge*.

A question constantly arises concerning the use made by housewrights of carpenters' handbooks. While one suspects that resort to pattern books was common practice, in the course of this survey of Cambridge architecture we have not run

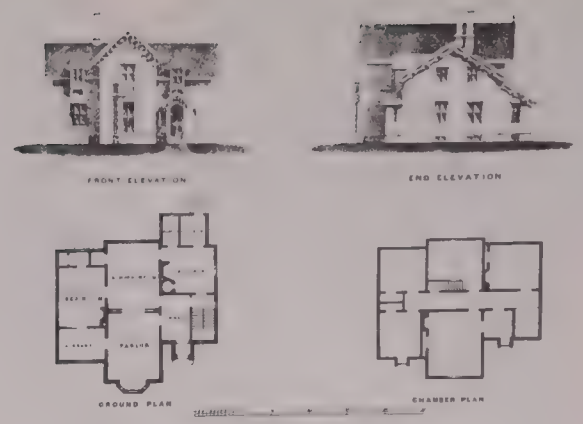
172. 85 BRATTLE ST., 1847. MICHAEL NORTON

173. STAIRS

174. VIEW THROUGH ROOMS

...ross a great deal of evidence to support the supposition. In the case of 85 ...ttle Street, however, the irregular plan and elevations are unmistakably simi... to Plate I, a "Villa in the Cottage Style" by Henry Austin in the 1847 revised ...ition of Chester Hills, *The Builder's Guide* (Fig. 175). Though we know of ...ven other houses in Cambridge by Michael Norton, the builder of our cottage, ... shows so direct a reliance on a pattern book.

Somewhat larger but similar in many details was the residence Samuel Batchelder erected in 1847 on the site of the present Mifflin Place (Fig. 176). (The house was moved in 1889, and demolished in 1971.) A simpler cottage was constructed at 6 Ash Street Place in 1848–"Gothic" only by virtue of the low ... line with steep gables for two upstairs windows and the center oriel window with its curious boxy projection. Substantially more elaborate, but long since destroyed, were houses at 64 Highland Street (1860), 25 Quincy Street (1844) and 958 Massachusetts Avenue.



175. "VILLAGE IN THE COTTAGE STYLE." FROM HILLS' *BUILDERS GUIDE*, 1847

Admiration for Gothic prototypes was not confined to the 1830's and 1840's but continued to appeal to American house-builders until the Great Depression. Nevertheless, the manner in which Medieval forms were interpreted from decade to decade changed so decidedly that there is no such thing as a textbook example of a Gothic Revival house. This fact we shall observe later in the chapter when referring to such diverse examples as the Stone Deanery for ETS (built 1879, demolished 1964; Fig. 219), the brick Ruskin-inspired house at 71 Appleton Street (1876; Fig. 214), a half-timbered design like 26 Hubbard Park (1894; Fig. 279), to say nothing of the "English" houses that were so popular after World War I, like 11 Garden Terrace (1930-40), 108 Washington Avenue (1924), or 48 Highland Street (1927; Fig. 266). The diversity of the Gothic Revival is also represented by a series of churches to be discussed in Part Five.

176. BATCHELDER HOUSE, MIFFLIN PL., 1847.
PHOTO OF C. 1870. DEMOLISHED 1971

Nineteenth-Century Eclecticism

During the middle decades of the 19th century far-reaching changes took place in American architectural design. Heavier and more assertive than before, buildings became irregular in outline, upright in proportion, and florid in ornamentation. The architect, unwilling to leave the subtleties of his design to be appreciated by a few discriminating observers, as in Federal times, now set out to impress the public with blunt force and heavy decoration. Refusing to be restricted to ornamental forms used by Greeks or Goths, he sought inspiration in other epochs, combed the pattern books for novel shapes, and created new forms of decoration of his own. Widespread by the 1840's, this independent and self-assertive attitude toward architecture lasted a long time and found many different expressions. Indeed, so many styles came into being and the distinction between styles is so complex that the basic qualities shared by many of these movements can be obscured. One must be on guard against over-preoccupation with style yet give it proper consideration, because 19th-century designers and patrons were very much concerned with the subject and generally discussed and evaluated their buildings in terms of style.

Italianate-Bracketed

One important manifestation of this expressive new architecture is the Italianate-Bracketed style which in Cambridge enjoyed wide currency from the late forties until about 1870. The term itself needs some explanation. In the late 1830's the United States saw the appearance of a new kind of suburban house. Asymmetrical, towered, deliberately irregular in mass, replete with porches, balconies, and bay windows, it was known as an "Italian Villa," but it had less to do with Italy than with a group of English country houses built in the early years of the 19th century. These in turn seem to have been more inspired by buildings depicted in 17th-century landscape paintings than by actual structures in Italy. The irregularity of their massing, it should be noted, finds a parallel in the even earlier informality of Gothic Revival design.

For about two decades (1838-1858) the Italian Villa satisfied the Yankee architect's urge for a bold, impressive style, and a freer range of architectural decoration. Though prominent architects like John Notman and Richard Upjohn (both of whom were of British origin and who sometimes worked in the style) were relatively disciplined and did not indulge in fanciful decorative excrescences, less discriminating housewrights and carpenters sometimes endowed their designs with extraordinary ornamentation. Utilizing the saws and lathes which 19th-century invention put at their disposal, they learned in the 1850's to fashion many shapes in wood which, because of cheapness, could be produced in almost unlimited quantities. Their imagination knew no limits, and their fanciful wooden embellishment is sometimes referred to as "carpenters' frenzy." The wooden bracket was one of their triumphs, a feature capable of infinite variation. Display, adaptability, and low cost endeared the bracket to American builders, who used it for more than fifty years.

177. 15 BERKELEY ST., 1863

In vernacular architecture the bracket was grafted onto Italianate forms, but the admixture was not constant. In some designs Italianate forms are strong and brackets are entirely omitted; in simpler building the bracket is often the design's only distinctive architectural feature.

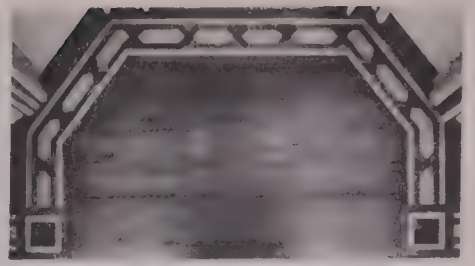
Old Cambridge has only one textbook example of an "Italian Villa," late in date and much altered (Fig. 177). The asymmetrical plan and towered silhouette of the main building illustrates the villa form, and the size and ample setting permitted a degree of picturesqueness not possible in ordinary Cambridge houses. As erected in 1863 for Lyman Williston at 15 Berkeley Street, it included a one-story wing to house the Berkeley Street School which Mr. Williston directed. In 1900 this wing was detached and, after the school was discontinued in 1912, the wing was remodeled as a separate dwelling at number 17; both buildings were then shingled. The interior retains much of its original character but does not differ from that in Mansard houses built in the same decade. Another good Italianate design—and one rather domestic in appearance—was Lawrence Hall at Harvard, built in 1847 and demolished in 1970 (see Part Six).

Larger and more elaborate than ordinary, three dwellings on Berkeley Street contain a good repertoire of Italianate-Bracketed elements and furnish a basis for comparing the style with earlier traditions. Number 4 Berkeley Street (Fig. 75) built in 1851, was the home of Richard Henry Dana, author of *Two Years Before the Mast*; number 5 was designed in 1852 by Calvin Ryder for Jonas Wyeth II. But most representative of Italianate tastes and beautifully preserved 6 Berkeley Street was built in 1853 for Miss Catherine Donnison (Figs. 178-179). In a determined effort to avoid boxlike rectangularity, all these houses employ T- or cross-shaped plans that give rise to complex geometrical massing. The form is further elaborated by the addition of porches, balconies, and bay windows; wall surfaces are charged with an architectural icing of cornices, quoins, or heavy window and door frames, which minimize the importance of the flat wall plane. Instead of the white paint favored by the Greek Revival, Italianate buildings were generally of muted reds, greens or siennas which, it was thought, enabled buildings to be assimilated more easily into the natural setting.

178. 6 BERKELEY ST., 1853

179. 6 BERKELEY ST. PLAN

The mass of the Italianate house is apt to be more vertical than the Greek Revival. This appearance of height is enhanced by the somewhat steeper roof slope and by the fact that the face of the gable, unbroken by a horizontal entablature, is continuous with the wall below it. The verticality in these three houses just mentioned is further emphasized by their standing on mounds banked around high basements, foundations that were necessary on Berkeley Street because of periodic flooding from the old watercourse along the line of the 17th-century palisade (see Part One).



181. 6 BERKELEY ST. LIBRARY FLOOR

180. 6 BERKELEY ST. STAIR HALL

Italianate-Bracketed architectural ornament is not obsequiously tied to the antique, and when a Classical form is needed it is more likely to be borrowed from the Renaissance. Corner pilasters with capitals give way to quoins, corner boards, or stout three-quarter-round moldings; porches are supported by bevel-edged posts or braced with arched tracery or lattice. In place of the three-part Greek entablature, designers used a heavy cornice but eliminated the frieze and architrave. The cornice, which is usually supported by brackets, projects considerably further than would a Greek Revival cornice, thus emphasizing the intersection of wall and roof. Fenestration shows more variety: windows are grouped in pairs, triplets or are used singly and enclosed by a variety of window frames. Windowpanes are usually 2/2 (each sash divided by a single vertical muntin), a change made possible by larger sizes of glass. The most characteristic detail, however, is the bracket, which develops great variety and complexity. Often grouped in twos, the usual location for the bracket is below the main cornice; but it is also employed to support hoods over doorways and balconies, and miniature brackets are used in place of dentils to support moldings that cap window and door frames.

Despite differences in external detail and massing, the interiors of most of these houses do not differ greatly from those of Greek Revival ones; generally painted white, the wood trim utilizes the same shapes and moldings. Door frames in the formal downstairs rooms at 6 Berkeley Street employ familiar crossettes, while the newel post of the main stairway has the potbellied profile found in late Greek Revival residences (Fig. 180). Fireplaces employ stock marble mantels, although arched openings fitted with coal grates come into use about 1850. (If not the case in these Berkeley Street houses, some marble mantels in this period do not contain a fireplace at all but a grilled register for hot air from the furnace.) Rooms become loftier in proportion once furnaces are in common use, and the plaster cornices and ceiling medallions of principal rooms are rich and heavy. One other difference from the Greek Revival interior is the use of polychromatic hardwood floors (Fig. 181). Not yet conventional parquets, these floors are made of moderately broad boards in long lengths; the pattern created by alternating boards of rather strident, contrasting colors also appears as a border 18 or so inches wide.

182. 154 MT. AUBURN ST., 1852

183. 156–158 MT. AUBURN ST., 1856

Mention should be made of two good Bracketed double houses: 134-136 Brattle Street (1857) and 42-44 Avon Street (1849). The latter stands on the dividing line between the Italianate and the Greek Revival manner; another example with the same ambiguity is 25 Craigie Street (1856; Fig. 171), which employs Greek Revival broad pilasters on the facade but fully developed brackets on the side and rear elevations. At Craigie Street also the emphasis placed on the projecting entrance pavilion capped by a gable is Italianate, but the front porch dates from a 1904 remodeling.

A good place to observe variations in the Italianate-Bracketed style is the intersection of Mt. Auburn and Ash Streets. Numbers 154 and 156-158 Mt. Auburn represent the transition from the Greek Revival style into the Italianate. The former (1852; Fig. 182) is almost a broad-pilastered Greek Revival house, but

184. 153 MT. AUBURN ST., 1874

the veranda supports, a cluster of light square shafts connected by arched struts and a common base, are Italianate. The double house built in 1856 retains simplified versions of Greek Revival entablature and pilasters, but the interruption of the facade by a projecting entrance pavilion with gable roof springing from a higher level than the cornices is Italianate (Fig. 183). So also are the bay windows, the rounded windows in the gable, and the heavy capped window frames of the second floor; the entrances, however, are simple Greek Revival. On the third corner, 151 Mt. Auburn (1853, remodeled 1871), the Bracketed design is unusual because of the pedimented, two-story porch. Instead of being Classical columns, the posts are square, employ a coarse corner fluting, and have arched sunken panels characteristic of the 1850's. The fourth corner, 153 Mt. Auburn, is a satisfactory academic performance with the flush-boarded wall surface scored to resemble ashlar, corner quoins, windows solidly framed, and a gable emphasizing the entrance; the only points for negative criticism are the smallness of the gable and the fact that no change of plane in the facade provides a reason for using the gable (Fig. 184). The surprisingly late date of 1874 for this shows how tenacious was the style. An admirable conversion of this property to three-family use in 1965 demonstrates that such changes need not destroy the architectural integrity of a building.

Also deriving fom the Italianate-Bracketed manner is a class of house of the utmost simplicity, devoid of embellishments around windows or at corners and even lacking brackets, in which the only allegiance paid to current architectural fashion consists of the substantial overhang and pitch of the roof. The gables terminate in raking cornices, the underside of which maintains at the eave line the slope of the rafters, and the cornice does not return on the gable ends. The spartan simplicity of such a design might almost be taken as a reflection of the unembellished functionalism recommended by Horatio Greenough and Emerson. Often found in workers' houses—as in several small dwellings in the vicinity of

185. 51 MARTIN ST., 1850, C. 1923, 1940

186. 4 WALNUT ST., 1877

Foster Street constructed soon after 1852—the largest example is a stucco-covered brick dwelling at 51 Martin Street (1850; Fig. 185). Its original simplicity is less apparent now because of the addition (about 1923) of a front porch and of a large wooden "Colonial" bay in 1940. Much larger and hardly to be classed as a vernacular house is 121 Brattle Street (1843), already mentioned.

Occasional examples of Italianate design were still being erected thirty years after the style reached its apex; the differences in their details are often difficult to detect. Particularly surprising is the 1877 date of 4 Walnut Street where the low roof, the lantern, and the bracket-crowned facade suggest a date in the 1850's; only the fanciful jigsaw work at the base of the front porch indicates the actual date (Fig. 186). Other examples of belated Italianate design are 24 and 32 Avon Hill Street (1872), 16 Lowell Street (1867), and three houses built by Sumner Brooks for leasing when he divided his estate on North Avenue: these at 11, 10, 15 Humboldt Street with the astonishingly late dates of 1882 and [illegible].

187. SPARKS HOUSE, 1838. DANIEL TREADWELL. PHOTO OF HOUSE AT 48 QUINCY ST. BEFORE REMOVAL TO 21 KIRKLAND ST. IN 1968

Academic

In summarizing the character of Cambridge architecture at mid-century it would be misleading to give the impression that the restless Italianate and Gothic Revival movements were the only media for architectural achievement. One must not ignore the coexistence of a group of more static and disciplined designs. Expressing an attitude toward architecture rather than a style, this counter-movement might best be described as academic. Symmetrical, orderly, and rational, academic design can be apprehended intellectually; by looking at the facade of an academic building one should be able to "read" its plan. Usually drawn from approved historical sources, academic ornament shuns eccentricity; the designer uses it principally to accent places of critical architectural importance. The mood of an academic design is deliberate, self-sufficient, and discriminating.

This attitude was no ephemeral fashion, confined to the 1850's. A continuous current in English architecture since Inigo Jones and Wren, it had clearly been an integral element in much Georgian and Federal design and springs ultimately from the Renaissance. Overshadowed in America during the thirties and forties, it was nevertheless present, as for instance, in the Jared Sparks house of 1838, a local masterpiece (Fig. 187). It can be found also in the almost stark simplicity of the carriage house designed by the poet Henry W. Longfellow in 1845 for 105 Brattle Street. In the fifties, the academic style was consciously advocated again, a resurgence paralleled in Boston and Cambridge by the appearance of architecture as a profession. Beginning in the late fifties, the movement was reinforced and eventually dominated by influences from France during the Second Empire (as will be discussed presently). Nevertheless, academic design is not confined to the essentially French-derived Mansard style, as proved by the presence of several good academically Italianate dwellings of the 1850's.

188. 63 GARDEN ST., 1854.
HENRY GREENOUGH.
DEMOLISHED 1968

189. 27 CRAIGIE ST., 1854.
HENRY GREENOUGH

A leading academic designer in Cambridge was Henry Greenough (1807-1883), whose work was dealt with in *Mid Cambridge* (pages 63-65) because most of his known buildings were in that neighborhood. In the present survey area, one of his houses, built in 1854, stood at 63 Garden Street (Fig. 188) until demolished in 1968 to make way for a Radcliffe house. Still standing across the way at 58 Garden Street is the Dixwell house of 1848. Its monumental dignity, as well as its roof design—halfway between a mansard and a hip—suggests that it is probably a work by Greenough, although no document as yet confirms this attribution. The Dixwell house was remodeled twice by Little and Browne, first by extension of the garden wing to the left in 1901, then by addition of the handsome new entrance porch in 1932. The most impressive of all Greenough designs, however, is the Guyot-Horsford house (1854) at 27 Craigie Street, at the corner of Sparks Street (Fig. 189). The garden facade is dignified and orderly: faced with flush, ashlar-scored siding and bound together by two string courses and a substantial cornice, the upright central pavilion is emphasized by its projection, its attic story with arched windows, the closer spacing or fenestration, and a porch with elaborate wooden tracery. The low hip roof reinforces the cubic mass of the building without diminishing the dominant role of that center pavilion. There is a clear hierarchy of design elements; the architect felt no need to heap on decoration to make this building impressive. A still simpler, but successful academic design, whose facade with flush siding is scored to resemble rusticated stone, is 3 Craigie Street, built in 1854 by the housewright, Isaac Cutler.

Mansard

The academic stiffening of taste in architecture, begun in Cambridge in the work of men like Henry Greenough, finds full expression in the Mansard style. Essentially this movement avoids irregular silhouettes or asymmetrical massing and continues to use architectonic ornament to emphasize critical areas like openings, corners, eave line. In this respect, as in certain detail, the ornamentation is similar to though more Classical than that used in Italianate work. One important visual difference between the two styles is the mansard roof, which gives the building additional height. (The practical advantage of the mansard roof was that it provided the rooms immediately beneath with much more headroom than did an ordinary gable roof.)

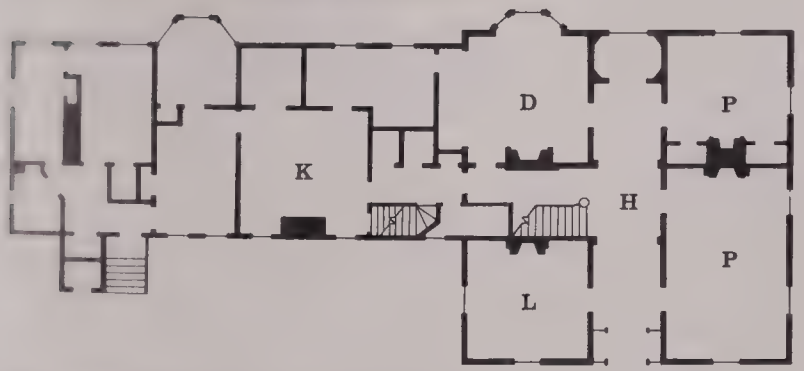
The term "Mansard style" is open to some criticism. For one thing, it is grammatically incorrect, since Mansard is not an adjective but a noun, derived from Mansard (or Mansart), the surname of the family of architects who popularized "la mansarde" type of roof in 17th-century France—yet "Mansardic" or "Mansarded" sound stilted. American use of the roof, along with a certain preference for academic ornamentation inspired by contemporary building in France under Louis Napoleon, has prompted some critics to call it the "Second Empire style." Though the term would be appropriate in the case of a monumental civic building like the Old Boston City Hall of 1861, it seems presumptuous applied to wooden houses in Cambridge, which are often very close to the vernacular.

The chronological focus of the Mansard style in Cambridge is the Civil War era. It is found as early as 1853, becomes widespread by 1857, falls into the hands of uninspired speculative builders after 1873, and lingers on as late as 1886. Found in all parts of Cambridge, mansard-roofed houses were prevalent in areas that flourished under the impetus of Civil War prosperity and the construction of horsecar lines. North Avenue particularly was rich in mansard-roofed mansions, though by now most of them have been demolished (Fig. 41).

Without question the finest local example of the Mansard style is the Denman Ross house at 26 Craigie Street, designed in 1868 by James R. Richards (Figs. 190-191). Splendidly sited on one of the most conspicuous corners of Brattle Street, the house has been beautifully maintained by owners aware of its architectural distinction. It has three formal facades, each slightly different. Two utilize the "a-b-a" composition so favored by the academic tradition, in which "a" is the framing element, "b" the unit that is framed. The elements are differentiated by changes in plane, but consistent size and framing of fenestration at each level tie them together. Cohesiveness is also insured by the horizontality that comes from the strong entablature and mansard roof. The corner pilasters are paneled, their capitals and bases built up of various stock moldings, and one should note that relatively correct modillions, rather than brackets, are

190. ROSS HOUSE, 24 CRAIGIE ST., 1868. JAMES R. RICHARDS. SOUTH FACADE

191. ROSS HOUSE. NORTH FACADE



192. ROSS HOUSE. PLAN. BEFORE 1971 REMODELING OF WING

sed to support the cornices. Richards, not otherwise an impressive architect, roduced in this house a dignified design by following established rules. This is he virtue of the academic approach: it insures a certain level of competence ven though it inhibits originality and experimentation. Later, however, the triction imposed by this approach was felt to be intolerable to American designers.

193. ROSS HOUSE. STAIR HALL

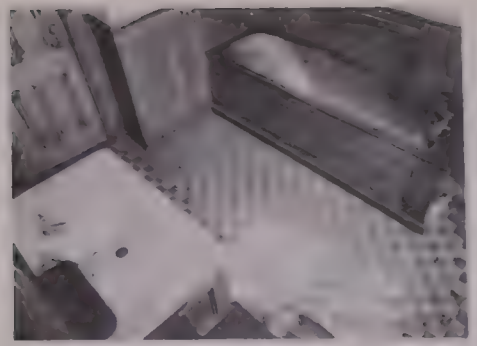
194. ROSS HOUSE. LIBRARY

The plan of the Ross house modified the 18th-century center-hall, four-room arrangement by adding a stair hall as wide as the entrance hall at right angles to it (Fig. 192). Uncrowded by a staircase, this arrangement provides a handsome central space with access to the principal rooms. The extra depth necessitated by the stair hall allows one of the two drawing-rooms to be enlarged, while the stair hall gives direct access to the service wing. The second floor has the usual four corner chambers with intervening dressing-rooms, but the hall is on axis with the stairs and thus at right angles to the entrance hall below.

Heated by a hot-air furnace from the beginning, the rooms in this house are lofty (13 feet on the main floor). Walls are capped by heavy plaster cornices, and principal rooms have elaborate plaster ceiling medallions from which gas chandeliers were suspended; interstices within the medallion connect with vents which led to a chimney flue.

The molding profiles of the interior trim in dark woods is much more complex and three-dimensional than that used in Greek Revival work. Wood paneling is restricted to a dado on the stairway and in both halls. The stair balustrade has a complicated design, with components produced by machine (Fig. 193). A handrail with straight runs between posts required less fitting than the sinuous rails of Federal design that sometimes wind from first floor to the attic without a break. Rather than the turned, pot-bellied post popular in the 1840's and 1850's (Fig. 180), the main newel is a monumental square composition with panels and applied moldings; undoubtedly a gas lamp on a metal standard once topped this newel.

The capacity of tools to proliferate the quantity of ornamentation and the taste for such elaboration can be observed in the library mantel (Fig. 194). Here a continuous linear decoration routed out by a drill and afterwards gilded results in a complex design, which contrasts with the otherwise polished surfaces of white marble. (Mantels in the other principal rooms were changed in an 1893 remodeling.)



195. ROSS HOUSE. BATHROOM

As occasionally happened in the Civil War period, some floors of the main level were laid with light and dark boards composed in patterns, a markedly different surface from the usual wall-to-wall carpeting. Two other handsome details are the silvered doorknobs and the etched glass panels employed in the main vestibule; a standard accessory of fine entranceways in this period, few panels of this kind have survived. In the 1850's and 1860's the New England Glass Company in East Cambridge produced comparable designs, but those of the Ross house cannot be positively identified as products of that particular factory. (The etched scenes represent the Brewer fountain, which stands on Boston Common, and the Hartford Stag.)

Although the original furnaces have long since been replaced, several hot-air registers of soapstone survive. Another interesting installation is the bathroom, in which all fixtures are boxed with the same tongue and groove boarding that forms the wainscot (Fig. 195). Whether this bathroom is original is not certain, but a plated metal tub gives a date before the mid-1890's when enamel fixtures began to be employed.

The architectural value of the Denman Ross house has not been impaired by the few changes made, but these should be noted for the record. The original service wing was replaced in 1893 by a much larger one, which in turn was remodeled as a separate dwelling in 1971 (Fig. 297). The south entrance, which originally repeated the main entry, was converted into a conservatory in 1934, and at the time alterations were made in the drawing-room. A balustrade originally surmounted the small deck at the summit of the roof. We should indeed be fortunate if all phases of the city's architectural history were represented by such well-preserved examples.

Another Mansard mansion of imposing scale and setting is the Greenleaf house at 76 Brattle Street, built in 1859 and now the residence of the President of Radcliffe College (Fig. 196). Constructed of brick, the exterior surfaces were originally plastered and scored to resemble stone. The detailing is not as elaborate or Classically "correct" as that of the Ross house; railings of somewhat Gothick design above the front porch and below the second-story windows were removed sometime after Radcliffe purchased the house in 1905. Beyond these two examples there are far too many good Mansard houses in Old Cambridge to

196. 76 BRATTLE ST., 1859. PHOTO BEFORE 20TH CENTURY ALTERATIONS

197. 4 KIRKLAND PLACE, 1856. HENRY GREENOUGH

enumerate, and we can only note principal variations on the basic type. House plans follow both center- and side-hall schemes, with a growing use of L-shaped plans after the Civil War. Mansard designs also come in different heights, but because the mansard provides a full story in the roof, the main cornice of Cambridge suburban residences is never more than two stories above the ground. There is, furthermore, a large group of double and row houses with mansard roofs, as one may see to good advantage on Walker Street.

Some interesting observations on the chronological development of Mansard design may be made on the basis of the large amount of data assembled by the present survey. The very earliest group of mansard roofs to appear—in 1853—have a distinct appearance: the slope of their roofs is so gentle that one questions whether they might not be classified as hip rather than as mansard roofs. But, since the design is so consciously academic and the quality of ornamentation so close to subsequent Mansard work, we are content to consider them mansards. This group includes houses designed by Greenough, whose only certain surviving mansarded house is 4 Kirkland Place (1856; Fig. 197).

198. 23 CRAIGIE ST., 1855

199. 48 BRATTLE ST., 1863. DETAIL OF CORNICE. DEMOLISHED 1969

200. 32 LINNAEAN ST., 1863

slightly later, 1857-65, houses combine the old-fashioned Italianate bracket with new-fashioned mansard roof. The brackets that support these cornices are exaggeratedly heavy and often appear in pairs; the roof usually has a concave profile, and the group combines roundheaded Italianate windows with others having correct academic frames. A fine example is 23 Craigie Street (1855; Fig. 198) where the Italianate-Bracketed qualities are so strong that one cannot quite dismiss the idea that the mansard roof may have been a later addition. In somewhat the same vein is an interesting triumvirate employing a lambrequin-frieze between the heavy brackets: 44 Follen and 24 Mt. Auburn Streets, both built in 1862, and 48 Brattle a year later (Fig. 199). The latter was known as Brattle Inn before it was demolished in 1969. These Mansard designs with brackets are closer to vernacular than to architect-designed work. Somewhat related are designs like that of 32 Linnaean Street (1863; Fig. 200) which employ a mansard gable—really a gambrel gable but with the characteristic concave profile seen in early Mansard work—and usual academic ornamentation.

After 1870 the sequence of Mansard houses in Old Cambridge illustrates a breakdown of the academic tradition while designers were searching for greater flexibility of plan and originality of detail. In a sense this tendency represents a resumption of the movement toward freedom in planning and massing begun with Italianate-Bracketed design in the early fifties and with Gothic Revival

201. 1626 MASSACHUSETTS AVE., 1868

202. 89 APPLETON ST., 1863

work before that until temporarily blocked by the upsurge of academic discipline. Though still working within an academically oriented tradition, designs of the late 1860's often reject a static geometric mass in favor of one that is complex. The silhouette is animated by towers or pavilions which diminish the horizontal continuity admired earlier. The plan also is varied, often taking an L- or T-shape, with not infrequent symmetry. Good examples of the L-shaped plan (with a resulting complexity of shapes) are 1626 Massachusetts Avenue (Fig. 201), 6 Follen Street, both of 1868, and 156 Brattle Street built a year earlier. These designs employ a more extended front porch than heretofore found and place the main entrance inconspicuously at the intersection of the wings, a far cry from the blunt, axial frontality prized by earlier Mansard designers. The complexity of massing at 156 Brattle Street is increased by the unusually deep bay window on the main facade. A loosening of plan elements is also observed at 37 Arlington Street (1874; Fig. 207A), while impatience with formal symmetry is further evident at 164 Brattle Street (1868) and at 89 Appleton Street (1863; Fig. 202) where the right side of the facade is pulled slightly forward to create a corner pavilion. Here the pavilion cornice is raised higher than the main block and is capped by an independent mansard roof. Although deliberately asymmetrical on the exterior, these designs retain a traditional center-hall plan and regular fenestration, and they illustrate that it was difficult for designers to break away from old habits of composition.

Even with a symmetrical plan and mass, a designer might animate his composition by adding an entrance tower, a roof cupola, or by giving greater geometric importance to a bay window. The house at 81 Washington Avenue (1871) (home of H.J. Melendy who subdivided the top section of Avon Hill in 1869) is crowned by an imposing cupola, and over the entrance porch there is a large oriel window which, when seen foreshortened from the street below, almost reads as an entrance tower (Fig. 203). Strongly accented entrance towers are found on two mansard houses, 77 Lake View Avenue (1871) and 94 Lake View Avenue (Fig. 204); even more striking examples can be found outside the survey area at 11 Bigelow Street (1870) and 334 Broadway (1867) (see *Mid Cambridge*, pages 70-71). Another method of complicating the geometry of the structure and adding variety to its silhouette is to carry the mass of the bay window through the main cornice into the roof. Extreme examples of this treatment are 37 Arlington Street (1874) and 1581-83 Massachusetts Avenue (1876) where the geometric independence of each bay is accentuated by an independent roof (Figs. 205, 207).

Coupled with loosened composition was a tendency to treat academic detail with greater freedom, in part from a deliberate search for original expression, but also as a result of using machines to fabricate decoration. High wages for craftsmen after the Civil War impelled builders to employ machines in making architectural decoration, and hand-carved relief with subtle modeling was eliminated in all but the most opulent commissions. The machine altered the character of the forms it manufactured, for, although it retained something of traditional Classical shape, proportion, and architectonic function, the new ornament was mechanical in feeling; forms were reduced to geometric shapes the machine could reproduce. First the surfaces would be planed smooth and then decoration applied to them in the form of elements precast in mastic or from wooden shapes turned on a lathe, cut with a jigsaw, or mitred together. Lavish in effect, this ornament was compiled from separate parts glued or nailed together. Because each element had to have enough body to avoid cracking, the scale of such ornamentation was coarser than when the whole composition was carved from a single piece of wood or stone. A reverse process of cutting away material rather than adding was accomplished by beveling edges, countersinking panels, or routing out linear designs. The latter technique was especially applicable to stone and marble, as the mantel of the Ross house illustrates. The place of Classical columns was usually taken by large square posts with beveled or beaded edges, while in the eighties these posts gave way to heavy turned ones.

Other minor changes in detail help one to determine the dates of Mansard buildings in Cambridge. The roof is a good indication of date. The hip-mansard roofs of 1853-56 have already been mentioned. A mansard with a concave lower slope generally indicates a date of 1855-65; a regular mansard with straight profiles and low-pitched upper section, 1860-75; one with the whole lower slope pushed out beyond the line of the facade, after 1870; a substantial upper slope—almost a hip on top of a mansard—indicates a date in the eighties. Dormer window design shows a development from early round or segmental arched openings (1855-65), to shed dormers whose upper slope continues out to cover the dormer (1867-80), to dormers with gables employing stick decoration (after 1873). Slate patterning in the roof may vary with date: the earliest roofs used unpatterned slate or were laid with imbricated designs resembling fish scales. Slate set in bands of contrasting design or color is apt to occur after 1868.

203. 81 WASHINGTON AVE., 1871

204. 94 LAKE VIEW AVE., 1874

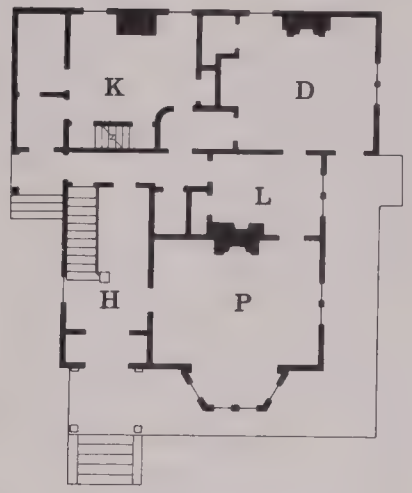
205. 1581–1583 MASSACHUSETTS AVE., 1876

Fenestration, too, shows a certain evolution. Round window heads generally g back to the 1850's; the pairing of windows within a single frame is a late feature hardly ever found before 1867. The design of bay windows tended to grow i complexity. Early bays seldom exceeded a single story, but after the Civil Wa this feature developed progressively to two full stories and then up into the roo so that the main cornice would be interrupted. Sometime after 1873 the ba window was capped by a roof independent of the mansard roof.

The treatment of wall surface provides a clue to the date of a late Mansard house. Clapboards—the usual wall covering throughout the 18th and 19t centuries—are employed ordinarily, sometimes in combination with flush siding intended to create an architectural accent. After 1868, however, the wall sometimes articulated with "stick work," a system of projecting boards that suggests structural framing or the use of prefabricated panels (though actually it is neither). Such textured surfaces in Cambridge were most prevalent during the middle seventies.

206. 28 ARLINGTON ST., 1876

207. 37 ARLINGTON ST., 1874.
PHOTO OF LATE 1930'S



207A. 37 ARLINGTON ST. PLAN

houses near the top of Avon Hill on Arlington Street illustrate what hap- l to the Mansard tradition toward its end in the mid 1870's. The facades of d 28 Arlington (1876; Fig. 206) are loaded with unusually elaborate detail; hough the placement of this ornament follows academic principles in being entrated at critical points, the detail no longer attempts to reproduce Clas- l elements, and the shapes used are easily achieved with a plane, saw, or he. More than for correctness, what the designer strives for is an overall effect chness.

particular note is the elaborate cottage at 37 Arlington Street (1874; Fig. 7). The formal symmetry and contained silhouette admired in early mansard mpositions is here shattered by the roof above the bay window, which is rried up in a tower form accentuated by iron cresting. Wooden finials occur at ch corner of the cornice. As a result, this design explodes with energy and mbition and looks forward to the inventiveness of Queen Anne design.

The Queen Anne Style

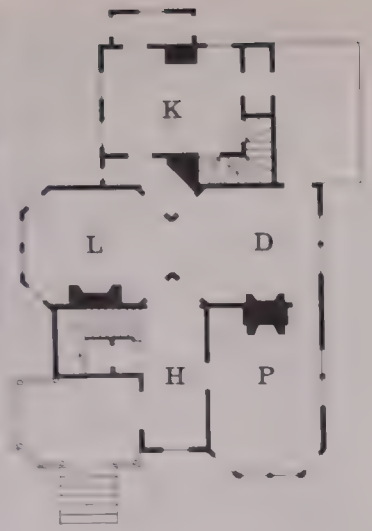
The architectural academicism of the Civil War era was followed by a restless period of search and experimentation lasting throughout the 1870's and 80's. The architecture of these years is referred to as "Queen Anne," a confusing term coined by British architects of the late 1860's to describe their own work; as used by them and their American imitators, it has little to do with the reign of Anne (1702-14). Moreover, to speak of a Queen Anne style suggests a single episode in the long succession of 19th-century architectural fashions, whereas the Queen Anne movement would more accurately be described as a family of styles, or better, as an architectural state of mind. This attitude can be characterized variously as a demand for freedom from an authoritarian tradition; the placing of a high premium on individual invention; a predilection for the experimental, the unexpected; a delight in the "artistic," the picturesque, the emotive fragment; an appreciation of good craftsmanship; a sensitivity to the nature of materials; a desire for openness and functionalism in plan and for an irregular massing.

Such energy and informality was not brand new. American design had begun to move toward the picturesque within the framework of the Italianate style, though that had been temporarily interrupted in the late 1850's by the more formal, academic Mansard style. Although the Queen Anne made no attempt to go back to Italianate-Bracketed decorative detail the two movements have a certain kinship in their fondness for irregular silhouettes and asymmetrical, broken masses.

Reasons for the wide popularity of the Queen Anne style are many. Its onset coincides with the founding of the first architectural magazine in this country (*The American Architect and Building News*, 1876) which discussed the theory of the movement at length and published illustrations that did much to disseminate the style. By this time, too, the designer had at his disposal a vastly increased assortment of structural and decorative materials produced by the machine and widely distributed by the railroad, in contrast to his predecessors who had been limited to local building materials and the skills of local craftsmen.

But probably the real reason for the enthusiastic acceptance of Queen Anne concepts in America was the fact that clients and architects were ready for change. Once architects had mastered the discipline of the academic Mansard style, they quickly tired of it and were attracted by the pliable Queen Anne artistic theory, which encouraged experimentation and personal expression. For their part, patrons liked the resulting novelty and variation. The style offered a welcome alternative to the worn-out academic clichés and it was able to express the untrammeled energy and rampant individualism of this country after the Civil War.

208. 23 BUCKINGHAM ST., 1878



209. 23 BUCKINGHAM ST. PLAN

The name Queen Anne is a catch-all term whose denotation changes from decade to decade. To isolate and discuss all phases would lead to a morass of stylistic distinctions, since phases overlapped chronologically and often fused. One can, nevertheless, distinguish formative, middle, and late phases of the movement, each of which lasted about ten years.

Early Queen Anne work, 1875-85, comprises work in three genres: the Stick style, the Panel Brick style, and a kind of Medieval revival inspired by John Ruskin. These currents have not always been identified by critics as Queen Anne but they shared fundamental traits with and were gradually absorbed into the full Queen Anne development. Though ornamentation is not interchangeable, what Vincent Scully has labeled the "Stick style" in wooden construction is activated by essentially the same forces that animate brick masonry in what Bainbridge Bunting calls the "Panel Brick style." Designers in both categories were aware of Ruskin's theories.

The Stick style came into prominence in the late 1860's. Influenced to some degree by the Swiss chalet and less by Medieval half-timbering, the crux of the style is a system of wooden framing members or sticks which articulate external wall surfaces. Projecting slightly in front of the clapboards, the network of sticks suggests structural framing, but in reality they perform no function, have no structural relation to either traditional braced framing or to the newer balloon framing. In spite of the fact that writers on architectural theory have charitably referred to this wall articulation as "romantic rationalism," it must be understood that stick work is quite unstructural: at most the network of sticks suggests a preoccupation with the process of putting the building together. Though bereft of structural meaning, the sticks animate the external wall surface and give it plasticity and textural interest. Whereas in academic design the visual function of the wall is to furnish a neutral surface to support a charge of architectonic decoration, now it becomes a dynamic component of the design with an intrinsic visual function.

210. 23 BUCKINGHAM ST. INTERIOR

The historic importance of the Stick style is its enunciation of a more constructivist approach to architecture, an importance that cannot be measured by its small representation in Old Cambridge. Only one example survives, at 2 Buckingham Street (1878; Fig. 208) and that has been deprived of much of its stick work. Early photographs demonstrate its Stick style preference for tall vertically proportioned forms and steep, slightly awkward roofs that project broadly and flare at the eaves. As this example shows, Stick-style buildings are apt to have a tense, congested feeling, and one senses the combative attitude of a designer struggling to create something new. The Stick style lacked the graceful rounded, flowing forms that came ten years later in the Shingle style, after architects had learned to integrate complex geometric shapes. Nevertheless, the sharp angularity of the gables of this house and the aggressive thrust of the oriel window—suspended from a wall that itself hangs over the void of the front porch—imparts a sense of vigor. Similar inventiveness and energy is observed in the open wooden bracing of the gables, entrance porch, and bay windows.

The Buckingham Street house plan departs from traditional center- or side-hall solutions (Figs. 209-210). The broken interior space and irregular shapes of the rooms impart a feeling of restlessness, since one room seems to jostle the next; gone are the self-contained space-cube rooms of the academic tradition. The stairway with its landing window and sloping roof anticipates larger and more dramatic compositions to follow in the next decade. A residence of moderate price (the house and lot were assessed at $6500 when built in 1878), the hall and parlor were nevertheless finished in black walnut trim, and the parlor baseboard is carved with an unusual running pattern.

Other houses designed in the Stick style are 88 Lake View Avenue (1874) and 51 Highland Street (1873), while several more examples have later been covered with stucco, like 53 Highland Street. Elaborate and well-preserved Stick-style ornamentation is also seen on the entrance porch of 10 Follen Street (1875 Peabody and Stearns) (Fig. 211). We have already pointed out that several late Mansard houses like 156 Brattle Street (1867) and 1581-83 Massachusetts Avenue (1876) employ a certain amount of Stick work in their treatment of walls and dormers; they are mentioned again to emphasize the way stylistic categories frequently overlap.

211. 10 FOLLEN ST., 1875.
PEABODY & STEARNS

he Panel Brick style the wall also assumes dynamic interest, and ornamenta- grows out of the masonry itself. Panel Brick decoration consists of panels t are either recessed or in low relief, and the designs have a rectangular, sharp, cato feeling as befits shapes made of brick; considerable variation in wall ure is achieved by the way the brick is laid. As in the Stick style, this mation is the antithesis of an inert wall surface upon which academic design- pply stable, architectonic accents.

Because of the paucity of masonry houses in Old Cambridge, examples of Panel k design are few. Typical, however, is a row of four houses at 61-67 Sparks built as rental property in 1875 for William Brewster (Fig. 212). The k work here well illustrates the range of decorative shapes and textures ved by the style. At 44 Walker Street (1880) the exposed chimneystacks n complicated Panel Brick decoration, while characteristic wooden stick appears in the wall bracing and front porch (Fig. 213). More elaborate ick work is found at Weld and Matthews Halls (1870 and 1871) in Harvard Yard (Figs. 353-354).

212. BREWSTER BLOCK,
61-67 SPARKS ST., 1875

213. 44 WALKER ST., 1880

214. 71 APPLETON
ST., 1876.
W.P.P. LONGFELLOW

The third aspect of early Queen Anne architecture is the quasi-Medieval manner influenced by John Ruskin. This style is more apt to be restricted to monumental buildings of masonry construction like Memorial Hall or the old commons building of the Episcopal Theological School. However, there are a few domestic examples of this style in Cambridge. Almost hidden behind its cover of vines and evergreens, the William Cook residence of 1876 by W.P.P. Longfellow at 71 Appleton Street well exemplifies this sort of endeavor (Figs. 214-218). Queen Anne characteristics are indicated by the irregular mass and broken roof line and by such picturesque features as the stained-glass window inserted over the chimneypiece of the drawing-room. Ruskinian Gothic overtones are furnished by blunt pointed arches and polychromatic masonry in which red pressed brick contrast with bands of brownstone and black brick, the latter made by immersing brick in hot tar. Black brick are also set in patterns in the cornice, and the chimneystacks contain three zones of small-scale Panel Brick designs. Ornately patterned wood brackets occur on dormer windows and in the roof of the central pavilion.

This house illustrates on a larger scale the same freedom of plan observed in the Stick-style house at 23 Buckingham Street built two years later (Figs. 208-210). On Appleton Street all vestiges of the center-hall symmetry are discarded, and the several projecting wings permit an easier adjustment of room location and size to use. Some rooms are large and accessible, others cozy and secluded. On the second floor a children's suite of three bedrooms and a bath is set apart from the principal bedrooms.

The Cook house contains one of the handsomest and least-changed Victorian interiors in Old Cambridge. Through a pointed archway an octagonal entrance vestibule with a floor of Minton tile leads to a splendid two-story stair hall which forms the core and pivot of the plan. A flight of stairs winds up two sides of the 14- by 10-foot hall, and a balcony runs around the other two sides. There is enough lateral expansion in this space to avoid the cramped verticality that mars many smaller Victorian interiors. Connected by a wide opening with sliding doors, the drawing-room and library are finished with the same mahogany trim so that they can be thrown together, as in some Greek Revival designs (Figs. 217-218). Their mantels are placed at opposite ends of a 40-foot long axis, and the fireplace window of the drawing-room creates an arresting focal point.

215. 71 APPLETON ST. PLAN

216. 71 APPLETON ST. STAIR HALL

217. 71 APPLETON ST.
VIEW FROM LIBRARY
INTO DRAWING ROOM

218. 71 APPLETON ST. LIBRARY MANTEL

219. DEANERY, E.T.S., 1879.
WARE & VAN BRUNT.
DEMOLISHED 1964

More regular in plan, 12 Reservoir Street makes a similar exterior use of blac brick and has an interesting veranda across its garden facade. It was designed 1877 by Ware and Van Brunt, architects of Memorial Hall and leading America exponents of the Ruskinian manner. One other dwelling designed by the firn (1879, now demolished) was the Deanery at Episcopal Theological School (Fig 219), but a number of academic buildings at the seminary showing Ruskin influence have fortunately been preserved (Fig. 308).

The Shingle Style

Flowering throughout the 1880's and constituting the very core of the Qu Anne movement is the Shingle style. This manner, represented by some of most important houses in Old Cambridge, sheathes the walls and roofs ent in shingles; almost all ornamental accents are achieved by means of shingl Relatively inexpensive to build and admirably suited to the informality of suburban house, Shingle architecture enjoyed enormous popularity, and formed a sequel to the somewhat strained experimentalism of the 1870's Cambridge the first completely shingled Queen Anne dwelling, the Stoug house, was constructed in 1882 (Fig. 227). By the 1890's the best work h been done and designers were rejecting flowing surfaces and picturesque gra for boxy compositions and stiff symmetry or for Colonial Revival ornamen tion.

There is nothing remarkable about using shingles to cover outside surfaces, sinc that material had been commonly used in 17th-century New England buildings Although eventually replaced by clapboards on important structures, shingl continued in use for barns and other outbuildings. In provincial regions, shingl were used for fairly large residences, as is indicated by the house at 20 Gra Gardens West, built in Duxbury about 1798 and moved to Cambridge in 193 (Fig. 133). But rediscovery of the shingle as a polite building material ca about, it would seem, not from looking back at early native usage but fro admiring contemporary British use of hung tile and slate. At first America architects may have substituted shingle for tile and slate because it was cheape and more weather-tight, but soon they became aware of its aesthetic possi bilities. Starting from imitation, American builders went on to use shingles wit great sensitivity and imagination.

220. 37 LANCASTER ST., 1888. HARTWELL & RICHARDSON

221. 37 LANCASTER ST. PLAN

A magnificent Shingle-style building is the Yerxa-Field house of 1888 by Hartwell and Richardson at 37 Lancaster Street at the top of Avon Hill (Fig. 220). Beautifully preserved, the house has the rare distinction of retaining a shingle roof, a factor of utmost value in maintaining a visual continuity between the roof and wall planes. Part of the genius of such architecture is found in the sense of the shingled surface as a flexible skin stretched over the structural framework and capable of being distended, warped, or punctured at any particular point. Since almost all accents, texture, and ornamentation are obtained by means of shingles, the decoration has the effect of growing organically out of the structure. Shingle style compositions are seldom symmetrical because plans were responsive to interior requirements and because designers cherished picturesqueness and irregular forms.

Although the use of shingles is so distinctive that it correctly deserves a stylistic designation of its own, one must not lose sight of the fact that many of the basic elements like massing and picturesque detailing characteristic of this group are to be found in structures built of other materials. Thus the manner of organizing contrasting geometric shapes of the Abbot house (now the Longy School of Music of 1889 by Longfellow, Alden and Harlow, Fig. 225) at 1 Follen Street, though built of splendid granite, is essentially similar to that of the Yerxa or Stoughton houses (Fig. 227) discussed below. The same is true of a brick structure like Richardson's Sever Hall, with its undulating east facade and use of towers (see Part Six).

The basic geometry of the Yerxa-Field house is simple: an oblong box capped by a hip roof and augmented by corner towers whose conical tops fuse into the main roof. Geometric accents like dormers, chimneystacks, and the broad-gabled front porch are kept subordinate. The flexibility of the light membrane of shingles is suggested by the way the towers are accommodated to the rectangular body of the house, by the recessed balcony on the west elevation, and by the rolled wall edges of the dormers. Such fluid wall treatment could never have been achieved with the old-fashioned barn framing used as late as the 1850's.

The main elevation of the Yerxa house is so orderly that it conveys a feeling of symmetry. Only after some study does one realize that the window placement is irregular, determined by interior considerations rather than by exterior balance. The reciprocity between the parts is so nicely adjusted that the composition achieves an equilibrium suggesting symmetry.

The house possesses the open, informal, spacious interior that was valued in the 1880's. Room sizes are determined by use, fenestration by need for light (Fig. 221). Instead of isolated, box like spaces connected by small doorways, these rooms flow together by means of wide openings, a characteristic that Frank Lloyd Wright would later exploit in his Prairie houses. A particularly grand feature is the stair hall that opens through two floors (Fig. 222). Up a few risers from the main floor, a sitting space on the stair landing has a finely cut brick fireplace set against a paneled wall (Figs. 223-224). In the upper reaches of this living hall little windows and balconies open into surrounding second-floor rooms; one wall is filled with splendid five-unit leaded windows whose grisaille and yellow glass blend with the golden oak woodwork.

A carriage house (1889) on the eastern part of the lot is in keeping with the main house. Because fenestration here was less tied to interior needs, the designer had an opportunity to compose a more picturesque elevation. The sunken enframements of the windows again recall the flexibility of shingle construction. This is unquestionably the finest surviving carriage house in Cambridge.

222. 37 LANCASTER ST. STAIR HALL

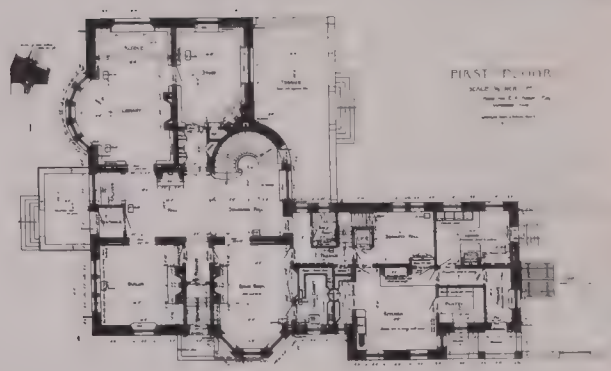
223. 37 LANCASTER ST. ENTRANCE HALL

224. 37 LANCASTER ST. HALL FIREPLACE

A more celebrated example of the Shingle style is the Stoughton house at the corner of Brattle and Ash Streets (Fig. 227). It was designed in 1882 by H.H. Richardson – not to be confused with William C. Richardson of Hartwell and Richardson, designers of the Yerxa house. The Stoughton house has not been chosen here to illustrate the Shingle style because it has been considerably altered through enlargement and because it is so well known that the public tends to think of it as an isolated work of genius. One must guard against this kind of false emphasis and attempt to see the more famous Richardson's work in relation to the designs of contemporary architects and to the Queen Anne movement as a whole. A comparison of the dates of the two buildings indicates that the Yerxa house came moderately late in the movement and grew from foundations laid by H.H. Richardson and others; but the comparison also shows that late and derivative work is sometimes more ingratiating than pioneer efforts.

The flexibility inherent in stud construction covered with shingles is again illustrated at 50 Garden Street (1890; Fig. 228), 11 Berkeley Street (1886; William R. Emerson) (Fig. 229), and 31 Gray Street (1893; George Fogerty). Since bearing walls in timber construction do not have to be aligned vertically – a condition almost basic to traditional masonry buildings – walls of one story can easily project or recess from those of the floor below. Such flexibility permits an accordion-like mobility in the placement of walls, as we see in the house by Emerson. While the span of the ridge roof remains the same for the entire length of the building, the garden facade fluctuates constantly, its position being determined by the size of the rooms inside.

225. LONGY SCHOOL OF MUSIC (ORIGINALLY ABBOT HOUSE), 1 FOLLEN ST., 1889 LONGFELLOW, ALDEN & HARLOW PHOTO OF C. 1890



226. 1 FOLLEN ST. PLAN

227. STOUGHTON HOUSE, 90 BRATTLE ST., 1882. H.H. RICHARDSON

228. 50 GARDEN ST., 1890

229. 11 BERKELEY ST., 1886.
WILLIAM R. EMERSON

While there are too many excellent Shingle-style houses in Old Cambridge to [illegible] them all, at least the neighborhoods in which they abound must be [illegible]. Off Brattle Street, good examples are to be found on Hubbard Park and [illegible]desel Avenue, where the Hubbard and Brewster estates were subdivided in [illegible] 1880's; an unusually handsome example is 8 Hubbard Park (1888; Cabot and [illegible]andler). A second corner of activity is the south slope of Avon Hill, where [illegible]ilding sites became available with the subdivision of the last part of the [illegible]per-Frost-Austin farm. At 33 Washington Avenue stands another Shingle [illegible]se by Hartwell and Richardson (1887). The same firm designed 49 Washing[illegible] Avenue (1887) which demonstrates Shingle-style massing and forms in spite [illegible] Colonial Revival details and clapboard surface (Fig. 230). Like the Yerxa-[illegible]field house across the street, this contains a fine paneled stair hall two stories high, a favorite device of that firm. Yet a third Shingle-style house in the immediate [illegible]ighborhood, at 36 Lancaster Street, was erected in 1886 by H. Taylor, a [illegible]uilder; not surprisingly, its design lacks the cohesion of one by a trained archi-

Two elaborate Shingle-style houses stand at 6 and 9 Walnut Avenue (1886, 1887), designed for brothers J.H. and E.M. Niles by J. Merrill Brown (Figs. 231-232). The hilltop location of these residences furnishes an excuse for the [illegible]mewhat extraneous lookout towers which typify the period's passion for the

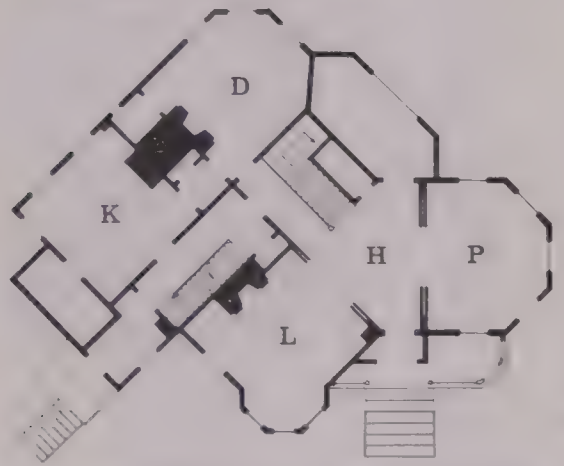
230. 49 WASHINGTON AVE., 1887.
HARTWELL & RICHARDSON

231. 6 WALNUT ST., 1886.
J. MERRILL BROWN

232. 9 WALNUT ST., 1887.
PERSPECTIVE AND PLAN
PUBLISHED 1890

picturesque. The plan of 9 Walnut Avenue, reproduced from a contemporary article in the *Cambridge Tribune*, provides an instructive comparison with the Yerxa house and demonstrates the enormous variations in plan that occurred at this time. Although the houses are roughly comparable in size, the stair hall of 9 Walnut Avenue lacks the expansiveness and spatial units of its neighbor.

233. 28 LINNAEAN ST., 1890.
C.H. BLACKALL



233A. 18 LANCASTER ST.,
1885. PLAN

234. 28 LOWELL ST.,
1891

A big central hall was a feature in almost all substantial Queen Anne houses called a "living hall," it served as entrance, stairway, circulation center, and sitting-room. To accommodate all these functions the hall had to be larger than a mere entry and should properly have had a fireplace. In modest houses, space for the hall was obtained at the expense of other rooms on the main floor. Since the average Queen Anne client was reluctant to relinquish the customary public rooms found in elegant houses–parlor, library, dining-room, living hall–the only way to keep them was to make each unit diminutive yet intercommunicating by means of wide openings sometimes supplied with sliding doors. This results too often in a plan that is badly cut up as one sees at 18 Lancaster Street (1885; Fig 233A).

A good medium-priced specimen of Shingle-style architecture is 28 Linnaean Street by C.H. Blackall, erected in 1890 for an estimated cost of $6000 (Fig 233). Its main exterior feature is a big, overhanging gable, but most of its architectural interest comes from the rich variations of shingle textures, a simple and economical means of adding visual interest. A modest specimen of the style is found at 28 Lowell Street, built in 1891 for as little as $2700 (Fig. 234). Despite its simplicity, this house avoids looking impoverished by means of the textured shingle surface and small recessed entrance porch. How essential shingle decoration is to the building's architectural character can be understood by comparing this house with some unhappy victim that has been emasculated with aluminum siding.

Good vernacular examples of the Shingle style are a number of houses on Bowdoin and Hurlbut Streets, which employ a combination of shingled walls above with clapboards on the ground story. They also illustrate Queen Anne impatience with symmetry; for although the plans of most of these examples continue the old arrangement of rooms of approximately equal width on each side of a center hall, the facades disavow symmetry. For example, 9 Hurlbut Street (1885; Fig. 235), 1734 Massachusetts Avenue (1885), and 10 Martin Street (1886) have an entrance and an essentially flat facade even though one side of the composition is provided with a gable that dominates the whole.

Shingle houses continued to be built in the 1890's and later, but with appreciable changes in style. As designers abandoned the graceful contours, the undulating surfaces, and the whimsical detail of the eighties, several distinct variations upon the Shingle style may be observed. Sometimes the design has a boxlike rectangularity along with the decisively overhanging eaves of a hip roof; windows are less varied in shape and size but are frequently grouped in banks of two or three. Good examples occur at 40 Appleton Street (1893; Andrews Jaques, Rantoul) (Fig. 236), 43 Appleton Street (1904; Wales and Holt), and a 5 Fayerweather Street (1894; C.H. McClare).

Another variation could be described as top heavy. Minimizing appendages that might interfere with simple massing, these designs employ a giant gambrel roof which may occupy as much as forty per cent of the total height of the building. Less variation in window shapes occurs than in the previous decade, but the doubling of windows to permit more interior light is common. Typical of this group are 147 Brattle Street (1887) and 16 Fayerweather Street (1892; Fig

9 HURLBURT ST., 1885

36 40 APPLETON ST., 1893. ANDREWS, JAQUES, RANTOUL
37 16 FAYERWEATHER ST., 1892. ANDREWS, JAQUES, RANTOUL

238. 8 HIGHLAND ST., 1897. HARTWELL & RICHARDSON

237) both by Andrews, Jaques, Rantoul and 25 Follen Street (1889; Longfellow and Alden). Occasionally the gable end is turned toward the street with a large, arched, third-story window prominent: 15 Channing Street (1899; Clark and Russell) and 12 Concord Avenue (1890; Cabot, Everett, Mead). In the nineties this group gradually fused with the Colonial Revival style, as at 25 Hawthorn Street (1896; Ball and Dabney).

Yet a third tendency has a comfortable, informal quality with a distinct preference for an open porch hollowed out from the mass of the building, giving the design an overhung quality. The gambrel roof is generally carried down to the level of the second floor, and the massing is more complex, often employing cross gables. In this variation the trim is simple and lacks both Shingle-style grace and Colonial Revival complexity; windows are large and relatively uniform in design, usually employing 6/1 panes. A splendid example is 8 Highland Street (1897; Hartwell and Richardson) (Fig. 238). The use of shingles by no means comes to a halt after 1900, but architectural design thereafter moves decidedly away from Queen Anne principles and will not be discussed here.

Free Classic

When during the late 1870's and or early 1880's leading architects in the United States designed Queen Anne buildings to be constructed of brick, they generally stayed close to British models, as one can see in numerous houses in Boston's Back Bay district or in a larger secular structure like the Boston Art Club. Since Cambridge had few brick residences, one must look for a representative of this genre to a Harvard building like the Hemenway gymnasium 1878 demolished 1938; Peabody and Stearns) (Fig. 367). Though British work was generally on a somewhat more generous scale, buildings of this class both in England and in America were referred to by critics of the time as belonging to the Free Classic movement.

A further extension to the term Free Classic can be made to include a numerous group of American dwellings constructed of wood. In contrast to British work where little building was done in wood, that material predominated in American

239. 167 BRATTLE ST., 1883. HENRY VAN BRUNT

240. 29 BUCKINGHAM ST., 1880

suburban construction. And although American designers retained some decorative motifs from brick design, when they turned to wood they lost their inhibitions and produced some very original—and sometimes bizarre—buildings. Rather different visually from brick design just mentioned, these wooden designs are still deemed Free Classic because the philosophy underlying both it and brick work was the same. Because the use of Classical elements now was deemed to be "free," no rules were required to control detailing, proportions, or the relation between forms; and though the designer had access to the repertoire of Classical decorative forms, he acknowledged no responsibilities for traditional symmetry, architectonic logic, or dignified repose. Thus variations on a Classical theme could be as various as the designers who produced them.

The ease and economy with which wood could be manipulated was so seductive that designers soon learned to indulge their fancy. Two characteristic devices are spindle friezes and elaborately turned porch posts, sometimes with incredibly complex, even awkward, profiles. The former are open panels filled with a tracery of machine-turned spindles used for balustrades, to fill the upper parts of porch openings, or for interior partitioning screens. Designers also went to pains to create as much variation as they could in surface texture or in window size and design. The geometric mass of the building could become an unbelievably

241. 23–25 BREWSTER ST., 1885

complex fusion of hips, gables, dormers, towers, bay windows, porches and terraces. Fortunately (or unfortunately) Cambridge clients were more restrained than most Americans and did not let the style get so out of hand as frequently happened, but one can form some idea of its character from 167 Brattle Street designed in 1883 by Henry Van Brunt for his own home (Fig. 239); Buckingham Street (1880; Fig. 240); 50 Buckingham Street (1884); 23 Brewster Street (1885; Fig. 241); and 44 Walker Street (1880; Fig. 213).

Colonial Revival

There was yet one other manner of architectural expression in the 1880's related to the Queen Anne movement, the Colonial Revival. An explanation of this name is in order because it, too, is confusing. The reader will recall that we have made a sharp distinction between the 17th-century Colonial, which is basically Medieval, and the 18th-century Georgian movement, which derives from the Renaissance. Although the revival we are discussing looks back to 18th-century models, we call it "Colonial" because that was the term used by the revivalists who produced it and the critics who praised it; the usage also serves to underscore differences between this first and a later phase of the return to Georgian prototypes.

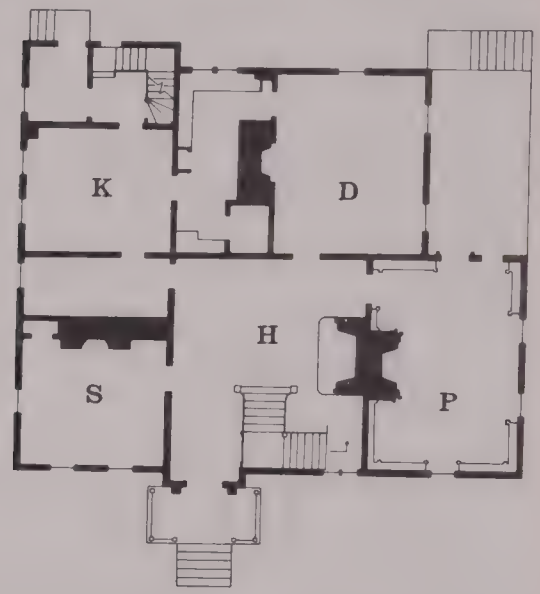
As we have already seen, the Georgian house, whether large or small, generally employs a center-hall plan and a symmetrical, five-bay facade. The house can vary in size and in degree of embellishment, but usually the plan and repertoire of decorative forms was limited. Here, as in all vernacular art, there was little concern for great originality; the carpenter-designer was satisfied with sound craftsmanship and content to devise the minor variations needed to adjust his project to generic forms. Designers of the Colonial Revival, on the other hand, were unwilling to accept such uniformity. Schooled to appreciate the picturesque and the individualistic, abounding in imagination like Queen Anne practitioners who were active at the same time, these architects were bored by the regularity of 18th-century work and confident that they could improve upon their models. For the most part, "improvement" meant greater elaboration of detail as well as a strong element of caprice; in designing millwork of extraordinary intricacy, the architect clearly relied upon the machine.

242. 168 BRATTLE ST., 1888. ARTHUR LITTLE. PHOTO BETWEEN 1889 AND 1893

The above remarks apply especially to country and suburban houses whose open sites gave architects scope for imagination. In designing for more restricted city sites, as in the Back Bay district, architects were content as early as 1890 to build almost perfect replicas of Georgian and Federal prototypes. In very early Colonial Revival suburban houses, Georgian details often occur as isolated elements in a composition that is Queen Anne. A case in point is the Joseph Thorp house at 168 Brattle Street, an early commission (1888) of Arthur Little, who later became one of Boston's admired authorities on Georgian Revival architecture (Fig. 242). The mass and plan of the house are irregular and unorthodox, its main front facing the river, its back toward Brattle Street. A two-story portico is tucked into a corner next to the service wing, and fenestration is unpredictable, window sizes and shapes vary erratically. Details such as the delicate pavilion of octagonal shape and the terrace door with its broken pediment demonstrate that, though the designer was indebted to Georgian work, he strove to enhance traditional forms with a new elegance and lightness.

Important for its design and very early date is the Carey house at 28 Fayerweather Street, built by Sturgis and Brigham in 1882 (Fig. 243). Here one perceives immediately the deliberate asymmetry of plan and mass; fenestration is irregular, with some openings grouped together and the Palladian window (obviously part of a stair composition) placed at one side of the entrance. This arrangement indicates how far the designer departed from the traditional Georgian plan to create a freer, more open plan and to make a more personal statement (Fig. 244). That he did not do this out of ignorance is certain, because John Sturgis had had the opportunity to study Georgian architecture during many years of residence in England, and in this country he had made careful measured drawings of the old John Hancock mansion in Boston before it was demolished in 1863. Though the large entrance hall of the Carey house with fireplace, picturesque stair composition of three runs (Fig. 245), and writing nook is essentially a Queen Anne living hall, the detailing of the balustrade and

243. 28 FAYERWEATHER ST., 1882. STURGIS & BRIGHAM



244. 28 FAYERWEATHER ST. PLAN

newels (Fig. 246) bears clear references to the Hancock stairway, as does the main stairway in a neighboring house at 25 Reservoir Street built by the same firm as early as 1872 for E.W. Hooper. So also the frontispiece of the Carey house resembles the front entrance of the Hancock mansion: a balcony borne on scrolled consoles over the main entrance above which is a second floor door capped by an elaborate broken pediment. These pioneering efforts by Sturgis are quite as important to the formulation of the Colonial Revival movement as is the better publicized work of Charles McKim—the 1872 remodeling of the Robinson house in Newport and the Appleton house of 1883 at Stockbridge.

245. 28 FAYERWEATHER ST. STAIR HALL. PHOTO PUBLISHED 1887 IN *AMERICAN ARCHITECT AND BUILDING NEWS*

246. 28 FAYERWEATHER ST. NEWEL

Another textbook example of the Colonial Revival is 115 Brattle Street (1887; Longfellow and Harlow) (Fig. 247). More symmetrical than the Cambridge example just mentioned, it makes a splendid comparison with the Longfellow house of 1759 just two doors away (Fig. 116), a comparison that gains in interest when we realize that it was commissioned by Annie Longfellow Thorp, who had grown up in the older house. (Her mother-in-law, Mrs. Joseph Thorp, built 168 Brattle Street just mentioned.) Although the younger Thorp's house is symmetrically composed about a central hall, the grouping of the first floor windows in triplets and the use of undivided sash are striking departures from the Georgian prototype; so, too, are the extensive side porches and the porte-cochère with elaborately turned balustrades. (Before the Revolution, porches were almost unknown and the term referred to the small enclosed projection at the front door; the side porches of the Longfellow house, it will be recalled, were added by Andrew Craigie in 1793.)

Other characteristics that demonstrate the close relation of the Colonial Revival to the mainstream of the Queen Anne movement are the enormous gambrel roof (which gives the Thorp house a certain top-heavy quality), the main entry with its complex side lights, and the second-floor balcony. The recessed balcony introduces a romantic note quite foreign to the sober formality sought by the 18th century, while this entrance with its fanciful side lights has no parallel in Georgian design. Such details illustrate the way in which the 19th-century Colonial Revival designer produced something quite different from that which inspired him, something quite his own. His fancy and inventiveness were irrepressible, and the machine, by placing rich ornament at his disposal, gave him another means to achieve his ends.

Within, the Annie Thorp house retains the traditional center hall and stair, but the interior space has been entirely transformed (Fig. 248). Wide openings occur between rooms and hallways, some of them too wide to be closed by sliding doors; thus the rooms, already large, flow together in a way that is essentially different from the compartmentalized space of Georgian times. (As a practical matter, such openness of plan would have been quite impractical in the New

247. 115 BRATTLE ST., 1887. LONGFELLOW & HARLOW

248. 115 BRATTLE ST. STAIR HALL

England climate before the advent of relatively efficient central heating.) Although ornamental details come from 18th-century sources, the stairway's open and divided composition outdoes its prototypes in monumentality and inventiveness.

Twelve years later than that of the Thorp house the same architects' design for Phillips Brooks House in Harvard Yard (1898) illustrates how rapidly the Colonial Revival moved toward the Georgian Revival.

Too many excellent Colonial Revival mansions exist in Old Cambridge to permit mention of them all. The William Brewster house at 145 Brattle Street (1887; Andrews and Jaques) combines brick end walls with a clapboard facade, a frequent enough solution in the 18th century (Fig. 271). Colonial Revival characteristics of this design—the cornice, porch, window and door details—combined with elements that are patently Queen Anne—exaggeratedly heavy gambrel roof, the bay window on a rear corner that unexpectedly develops into a tower, and big clustered chimneys placed asymmetrically.

249. 1 HIGHLAND ST., 1894.
LONGFELLOW & ALDEN

250. 158 BRATTLE ST., 1884

251. 26 WASHINGTON AVE., 1889.
HARTWELL & RICHARDSON

252. 192 UPLAND RD.
—103, 105 RAYMOND ST., 1898.
BLAIKIE & BLAIKIE

Unusual in its complete documentation and perfect preservation is the handsome J.A. Noyes house at 1 Highland Street (1894; Longfellow and Alden) (Fig. 249). Although the axial entrance and five-bay fenestration follow Georgian precedent to some extent, Colonial Revival independence is seen in the overhanging second-floor supported by heavy consoles, an asymmetrical bay window, and the fanciful ornamentation of the main entrance. An equally interesting house stands at 158 Brattle Street (1884) in which, despite Colonial Revival detail, a Queen Anne freedom is seen in the undulating clapboard surface of the oriel window and the off-center position of the entrance, a functional dislocation caused by the unequal space requirements of the dining- and drawing-rooms on either side of the entry (Fig. 250).

Other outstanding Colonial Revival designs include 26 Washington Street (1889; Fig. 251) by Hartwell and Richardson (who were concurrently designing several neighboring residences in the Shingle style). The work of different architects, two Colonial Revival houses of comparable size and rich architectural detail, are 90 Raymond Street (1896; C.F. Willard) and 44 Garden Street (1894; F.M. Wakefield). Another pair, similar in their hip-roofed rectangular masses and side porch entrances, are 16 Avon Street (1894; F.B. Furbish) and 5 Ash Street (1887; Longfellow and Harlow).

Vernacular examples of the Colonial Revival are legion, the popularity of the style to some extent accounted for by the fact that mill work in that fashion was now being mass-produced by planing mills. Designing their product in the currently popular Colonial Revival style, the mills soon stabilized the sizes and designs of available doors and windows and therefore strongly influenced the character of subsequent vernacular work in a somewhat "Colonial" vein for the next forty years. Some changes were, of course, made during this period, generally in the direction of gradual simplification. An elaborate vernacular piece from around 1900 is represented by the large double house at 192 Upland Road–103,105 Raymond Street (1898; Blaikie and Blaikie) (Fig. 252). A more work-a-day example and one of the few examples in Old Cambridge of the otherwise ubiquitous three-decker is 36 Hawthorn Street (1898). The gradual simplification of later vernacular work with a Colonial cast that verges on Georgian Revival can be observed in whole streets of two-family houses built by development companies; examples are found on Longfellow Road (built in 1923 on the site of the earlier Avon Home), along Mt. Auburn Street, and at the Huron Avenue end of streets on Reservoir Hill.

By 1900 the picturesque Colonial Revival had run its course and was followed by work of a more archaeological cast. Instead of originality, architects now sought "authenticity" to the point that they sometimes copied entire houses (or at least certain features). This movement, called Georgian Revival, will be dealt with later, but one example may be mentioned here for purposes of comparison with the Colonial Revival. At a glance one sees that 22 Fayerweather Street, designed as early as 1898 by H.D. Hall, is strongly reminiscent of Elmwood, the Oliver-Gerry-Lowell house of 1760 standing less than half a mile away (Figs. 134-135). The Fayerweather Street house is smaller than Elmwood, so that its proportions are necessarily different, but retention of the three-story facade and the design of the entrance frontispiece are clearly derived from the older dwelling.

The Twentieth Century

Twentieth century architecture in Old Cambridge falls into three phases of about twenty years each: the period through 1919, the two decades between the wars, and the years since World War II. Later 20th-century movements are less fully represented because fewer new houses have been erected here owing to lack of space. Since World War II especially it has become all but impossible to obtain a site for a new dwelling except through the demolition of an earlier one. As a result, a significant portion of the recent housing needs of the city has been met by the remodeling and subdivision of older structures.

The present century has seen enormous changes in the pattern of living as well as in the economics of construction, and it is not surprising that architectural forms and solutions have also been modified. As the city has become more tightly packed with people, buildings, and cars, the amount of space available for each new living unit has been reduced. New houses and gardens must now be smaller than they were two generations ago, and, in order to achieve the desired individuality and privacy, great care and efficiency in planning is demanded. In place of front porches and the spacious lawns that characterized Old Cambridge in the 19th century, modern outdoor living areas are apt to be small, surrounded by tall bushes or fences, and often secluded at the rear of the lot. A comparison of old photographs and modern views reveals how the Old Cambridge streetscape has been closed in with planting and walls, a tendency that is furthered by the present preference for banking shrubs around the foundations of houses. Similarly, the old custom of having the main rooms of the house face the street is no longer desirable because of traffic, and many houses are now arranged with the street side left for parking and service.

At the same time there has been a diminution in the number and size of rooms in the average new house and marked changes in the types of rooms provided for specialized uses. Only the living-room has remained relatively large, usually occupying the whole length of the house on one side of a central hall. The large 19th-century living hall long ago gave way to a smaller entrance and stair hall, but this element has become narrower with each decade until it is barely wide enough to accommodate the stairs and a small passage or coat closet. Between about 1905 and 1930 there was a fad for breakfast rooms, sun rooms, open side porches, and sleeping porches, but they dropped out of fashion as houses grew smaller and as air conditioning became more common. The present tendency is to combine separate functions into a single room in order to get at least one good-sized interior space in each house. If any kind of outdoor living area is provided, it is most probably an open terrace intimately associated with the garden. The breakfast room has become part of the kitchen, which now is one of the most pleasant and carefully planned rooms in the house. If the number of separate rooms in the average house has decreased, bathrooms have increased. In new houses separate maids' quarters are all but nonexistent. On the other hand, a growing dependence on the automobile is indicated by the increased architectural importance given the garage or parking spaces; frequently it is placed on the street facade of the house and it accounts for a significant portion of the total building area.

The increasing cost of domestic help has occasioned an ever greater dependence on labor-saving devices and mechanical equipment. The laundry has moved from a dark corner of the basement to a cheerful place on the main floor, possibly in the kitchen, while dishwashers long ago replaced the low soapstone sinks in kitchens and the secondary small, nickel-plated sinks located in dark, secluded china closets. Building technology has also changed in response to rising labor costs and available materials. The quality and amount of hand labor that can be employed for exterior masonry and interior wood finish has been drastically curtailed, and prefabricated units of standardized designs are now used instead of "custom work" executed for a specific location. The well-fitted paneling and crisply detailed interior wood trim of earlier decades has given way to plywood sheets, standardized moldings of timid profile, and stock mantelpieces. As lumber grows short in supply, synthetic building products replace it; indeed fine woods, whose opulent use was characteristic of late 19th-century homes, are now unobtainable except as veneers.

Twentieth-century architecture in Old Cambridge through the first war might best be termed post-Queen Anne because its scale, plan concepts, and materials of construction are closer to 19th-century usage than to that of today. One can identify three threads of architectural development in those years: a rather correct Georgian Revival, which grew out of the Colonial Revival; a Medieval inspired manner, which emerged from the Stick style as well as from Queen Anne work in England; and a nameless movement, which we shall refer to as neo-rationalist.

Neo-Rationalism

Neo-rationalism, a type of design for which the historians have not yet coined a term, is characterized by a rational approach that deals with problems of mass and proportion which the originators judged to be the essence of architectural design. As a matter of principle the movement rejects the seductive grace and picturesque charm of Queen Anne design, whose whimsical details and extraneous ornaments are so diverting, and it abjures dependence on historic precedents. From this point of view it is a reform movement, recognizing the need for a new architecture appropriate to the 20th century. But this goal has been sought for largely in the realm of visual innovation rather than of essential reforms based upon use of the machine, concept of functionalism, or control of interior space. Instead, the movement continued many Queen Anne attitudes regarding scale, interior planning, good materials, and sound craftsmanship.

Perhaps the new rationalism ought to be described as an intellectual approach to architecture rather than a visually distinct manner, because it encompasses much stylistic variety. The common element is the dominant role given to clear geometric composition, to which end architectural ornament, material, and texture are subordinated. The movement takes two fairly distinct visual forms: one branch may be characterized as blocky, static and rather upright, and capped by a hip roof (Fig. 253), while the other achieves a lighter, more complicated geometric integrity using steep-pitched, gabled roofs (Fig. 260). In the choice of building materials both groups continue to employ shingle, clapboard, and brick and after 1900, stucco also is popular, its uniform texture and light color emphasizing the building's geometric content. Surfaces are no longer agitated with

253. 7 GARDEN TERRACE, 1914. H.F. KELLOGG

gratiating textures or decorative patterns, as in the Shingle style, nor are they ped into irregular planes. Instead of textured areas, planes are smooth in r to describe the building's geometric volume.

th classes, fenestration avoids the chaotic variety of Queen Anne design and cts itself to windows of more or less uniform size and shape. Now, however, dows are often banked in groups of two or three units to provide more erior light at certain places. Window frames are usually simple; sometimes the sement or sash employ leaded glass or the wooden muntins are arranged in sual patterns.

though such experimentation may now appear to be a superficial response to cultural and economic changes that were reshaping 20th-century architecture, it was, at least, an attempt to find a new idiom and it indicates dissatisfaction with revivalism. It is significant that this experimentation was confined to architects engaged on fairly substantial commissions.

The hip-roofed group tends to have blocky proportions and a heavy overhanging which imparts a ponderous, uncompromising feeling. Almost never are the eaves boxed; exposed rafter ends are one hall-mark of the group. Exposure of the underside of the sloping roof conveys the feeling of a broad, protective hood over the house. An example is the stuccoed house with slate hip roof at 7 Garden Terrace (1914; H.F. Kellogg) (Fig. 253): the architect worked hard to avoid any allusion to a historical style, and applied ornamentation is absent (the latticed entrance porch is a later addition). Although the symmetrical center-hall plan is no different from that used for Georgian Revival houses of contemporary date, fenestration is quite distinct. The banks of windows on the ground floor are a decidedly 20th-century feature, and variations in window size and proportion on the two floors indicate differences in room usage.

Somewhat similar in appearance are the large stucco houses at 16 Berkeley Street (1905; Hartley Dennett) (Fig. 254), 117 Lake View Avenue (1910; C.H. Bartlett), and 36 Fresh Pond Parkway (1910; Charles Greco), all of which employ banks of wooden casement windows in principal rooms. The irregular plan of the Berkeley Street house, which has living areas opening toward a pleasant rear southern terrace, is unusually free, with rooms and halls expanding

254. 16 BERKELEY ST., 1905. HARTLEY DENNETT

255. 16 BERKELEY ST. PLAN

256. 16 BERKELEY ST. INTERIOR

into one another with an easy flow of space that foretells the future. Although the pedimented frame of the entrance vestibule is made up of classical elements, its proportions and details are freely interpreted. With less articulated fenestration, yet forceful in its blocklike brick mass, is 2 Walnut Avenue (1911; E.N.

257. 37 GROZIER RD., 1924.
J.J. BROCKMAN

258. 73 FAYERWEATHER ST., 1913.
R.C. GROVESTEIN

Boyden). Still another large example of this progressive point of view is 33 Garden Street (1905; C.K. Cummings), which has a distinctive entry in the form of a recessed arcade, while the rigid symmetry of the fenestration and paired chimneystacks on the facade emphasize the geometric quality of the design.

This blocky, rationalistic, unadorned style had some impact on Old Cambridge vernacular building, witness a number of two-family houses with hip roofs and walls of shingle or stucco: 37 Grozier Road (1924; J.J. Brockman) (Fig. 257); 73 Fayerweather Street (1913; R.C. Grovestein) (Fig. 258); 25-27 Gray Street (1926). It was also used for three deckers such as 6 Brewster Street (1915) or apartment buildings like 41 Hawthorn Street (1911). For front doors or porch columns on such buildings the designers often relied on stock millwork of "Colonial" design. Unique for Cambridge, though legion in the Midwest, is the simple, hip-roofed house at 40 Avon Hill Street (1898) by the builder, B.N. Merrill.

The larger, more ambitious rationalist designs like the Berkeley Street house raise a somewhat extraneous but nevertheless interesting question, that of their relation to the Prairie style that Frank Lloyd Wright was developing at the same time in the Midwest. They appear to share certain essential ingredients: an overriding concern for geometric form, a preference for heavy, lidlike roofs with widely projecting eaves, banks of windows to increase interior light, and a determined independence of historic styles. The Cambridge work does not go so far as Wright's in formulating the new architectural approach and its ornamentation is much less personal. Less insistence is placed on horizontal elements of composition by means of wood banding or attached terraces and garden walls to tie the composition to the lot; there is also less sensitivity to the nature of materials and little of the continuous flow of interior spaces or unification of the structure's interior and exterior which were the concerns of Wright. Thus there is no real reference in Cambridge to Wright's Prairie style. Nor is there evidence of the so-called Craftsman movement of about 1905, but one lone example of the California Bungalow found its way to the slopes of Avon Hill: 71 Avon Hill Street, designed in 1912 by A.L. Darrow (Fig. 259).

259. 71 AVON HILL ST.,
1912. A.L. DARROW

260. 15 HUBBARD PK.,
1914. NEWHALL & BLEVINS

In contrast to the hip-roofed group, the second type of neo-rationalist design produces a light, active impression without sacrificing the importance of the geometric composition. This group arranges gables with considerable variety sometimes off center or at right angles to the facade, the gables contrast with the lower-lying eave lines. Roof slopes are fairly steep and have a minimum projection beyond the gable or eave line, a treatment that produces a crisp, clean-cut geometrical effect. If bay or oriel windows are employed, they occur not as incidental elements enlivening the design's picturesque character but so as to enhance the geometric integrity of the composition. As we see at 15 Hubbard Park (1914; Newhall and Blevins) (Fig. 260), other characteristics associated with this group are exterior stuccoed surfaces and slate roofs (generally the stucco covers a hollow-tile masonry construction), but a few designs like 15-17 Lake View Avenue (1903; Langford Warren) are shingled.

A first impression of the houses conveys a somewhat Medieval feeling because of the steep roofs and prominent gables. However, there are no decorative allusions to Medieval styles—no half-timber work, pointed arches, carved bargeboards, or Gothic doors. Indeed the surfaces are deliberately plain, and such ornament as occurs at the entrance is apt to recall the Renaissance, though it is by no means

261. 6 GARDEN TERRACE, 1904. LANGFORD WARREN

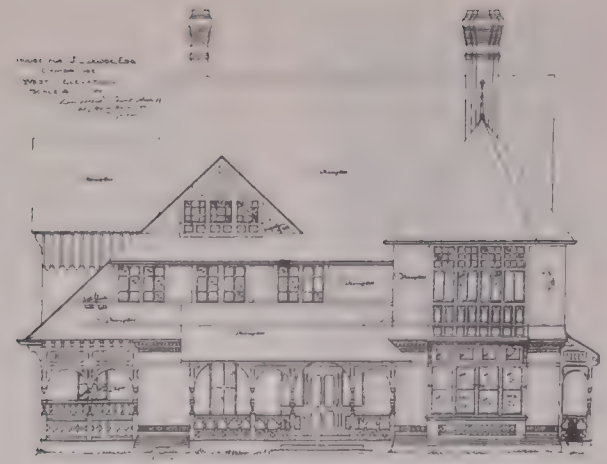
262. 6 GARDEN TERRACE. STAIRWAY, MAIN FLOOR

haeological. In terms of antecedents, this work derives inspiration from turn-the-century work in England by designers like C.F.A. Voysey. This British had spread to the United States by the late nineties, and the first representatives in Cambridge were built in 1903. Numerically small, this group of signs is architecturally distinguished; almost all examples in Old Cambridge are work of well-known architects like Langford Warren, Allen Jackson, Newhall Blevins, or Hartley Dennett.

of the most interesting houses in the city is 6 Garden Terrace, which ngford Warren built for himself in 1904 (Figs. 261-262). Thoughtfully designed for the site, it is built into a hillside with the entrance at the lower level living quarters on the principal floor opening onto a broad rear terrace. ough the lot is small, the prospect from the terrace overlooking the grounds the Harvard Observatory is stately. Above the bedroom floor is a studio with ge northern window. Typical also is the restrained architectural ornamentation which consists only of a side-lighted entry and porch with simple window ngements on the principal floor and two elongated stair windows on the et facade. As in several other houses of this category, the windows are leaded ement in wooden frames. Other good examples are 2 Channing Place (1921; Hicks Stone) and two handsome houses on Reservoir Street: 33 of 1909 by Allen Jackson and 43 of 1913 by Hartley Dennett.

Medieval Revivals

What might be called the neo-Tudor or half-timber style constitutes another ognizable group of designs. Characterized by the use of half-timber work and formal massing, this group continues the picturesque strain of the Queen Anne along with a predisposition for detail inspired by the late Middle Ages, a tendency that grows progressively stronger. Except for the half-timbering, this tegory of design is not very different from the gabled rationalist designs just discussed. Nevertheless, the visual impact of the two groups is very different: the



263. 70 SPARKS ST., 1878. LONGFELLOW & CLARK

rationalist design has an abstract clarity and lightness, while the basic geometry of the neo-Tudor house is minimized by overhanging eaves and various kinds of surface decoration used to enliven the design.

Half-timber work was used over a long period of time, with instances occurring in every decade from the 1870's to the 1930's; but the manner of using and detailing half-timber ornament varies, and a clear chronological sequence can be observed. Although such continuous development is interesting to trace, to do so runs the risk of focusing more attention on such a detail than it deserves. Exposed half-timber work in America was probably derived from the early work (in the 1860's) of Norman Shaw and others in England. A prompt and competent reflection of this influential British movement is found in the Edward Dodge house at 70 Sparks Street, designed in 1878 by Longfellow and Clark but considerably modified on the interior in 1909 by J.W. Ames (Fig. 263). Less Medieval but more "native" is the Stick work of the seventies (23 Buckingham Street; Fig. 208). During the eighties half-timber work was only one of many decorative devices upon which the Queen Anne designer might draw, as in Henry Van Brunt's house (1883; Fig. 239) at 167 Brattle Street where the timber work competes with textured shingles, clapboards, turned posts, and irregularly muntined windows. In the nineties the scale of the timber work is heavier, reminiscent of Medieval prototypes and frequently associated with heavy bargeboards, overhangs, and canted horizontal beams; it often uses window sash filled with diamond-shaped panes divided by wooden muntins: typical examples are 26 Hubbard Park (1894; F.R. Allen) and 27 Fayerweather Street (1896; T.F. Walsh) (Fig. 264). By the early years of the 20th century the style was becoming noticeably more archaeological. More famous for his Gothic Revival churches, Ralph Adams Cram is nevertheless represented on Brattle Street by three early and less well-known houses: numbers 126 and 128 were built in 1890 and 1892 (Fig. 265); the third house by his firm and now remodeled is at 11 Kennedy Road (1900). Other prominent designers who worked with half-timber in the early years of the century are Langford Warren at 195 Brattle Street (1895) and Allen Jackson for his own house of 1903 at 202 Brattle Street (Fig. 280).

264. 27 FAYERWEATHER ST., 1896. T.F. WALSH

265. 128 BRATTLE ST., 1892. RALPH ADAMS CRAM

266. 48 HIGHLAND ST., 1927. ALLEN JACKSON

The trend toward a more accurate reproduction of Medieval forms intensified in the teens and twenties: at 48 Highland Street (1927; Allen Jackson) (Fig. 266), 11 Garden Terrace (1930; Duguid and Martin; remodeled 1936, 1939) and 108 Washington Avenue (1924; Kendall and Taylor). A delightful house with carved ornamentation of unusual quality both inside and out is one Graham Carey designed for himself in 1922 at 16 Gray Gardens East. Simpler versions of the same movement can be found in the Larchwood area and in the 1919 remodeling of the earlier (1888) Queen Anne house at 24 Highland Street. At the vernacular level, however, archaeological considerations are not strong: 251 Brattle Street (1928), 59 Fresh Pond Lane (1927), and 31 Madison Street (1924). Another variation of the Medieval theme, of course, turns to 17th-century Colonial work for inspiration, a subject already discussed; the most accurate reproduction of a 17th-century Colonial house is 19 Old Dee Road (1940; Royal Barry Wills) (Fig. 102).

Georgian Revival

By far the largest group of designs of the early 20th century belongs to the Georgian Revival manner. By count, over 150 out of about 350 Old Cambridge houses built between 1904 and 1930 fall within this classification, a substantial preference that corresponds to the general acceptance of the style for all types of residential building by patrons and architects throughout Greater Boston.

The Georgian Revival style was less susceptible to personal idiosyncracies than the concurrent neo-Tudor or earlier Queen Anne movements because of the disciplined character of the prototype. Furthermore, as houses became smaller and plans simplified to the irreducible center-hall scheme, there was less opportunity for originality of design. Despite the fundamental uniformity of plan, considerable variety existed in details because, as we have already seen in discussing the 18th century, of the numerous phases of Georgian architecture the architect might imitate.

Two mansions of Georgian Revival design were erected in Old Cambridge, both in 1911. One was built in Harvard Yard for President A. Lawrence Lowell from designs by Guy Lowell (Fig. 267), the other at Gerry's Landing for Edward Waldo Forbes from designs by Joseph E. Chandler (Fig. 268). Both are impressive three-story structures of the type produced by Federal builders in New England, but the heavier detailing in the Forbes house is closer to High Georgian precedents in England.

One of the finest pieces of domestic architecture in Old Cambridge stands at 55 Fayerweather Street (1905; R.A. Fisher) (Fig. 269). In quality of workmanship and range of fine materials, it illustrates the high point reached by American building before World War I. After the war both labor and materials came into short supply and corners had to be trimmed—a process that has not since been reversed. The design of the house is unusually good, with orientation, site planning, landscaping, and topographical conditions synthesized to make maximum use of the spacious lot. By locating the house on the northern building line, garage and service access could be directly on the side street, which is also on a lower level; this in turn allowed a garden of maximum size on the southern side of the house. The planning is ingenious without becoming clever in the

17 QUINCY ST. (PRESIDENT'S HOUSE), 1911. GUY LOWELL

30 GERRY'S LANDING, 1911. JOSEPH E. CHANDLER
55 FAYERWEATHER ST., 1905. R.A. FISHER

Queen Anne sense, and the unorthodox placement of the main entrance at the front corner of the building was not allowed to disrupt the formality of the Georgian garden facade. Inside, the large center hall with fireplace retains some relation to the Queen Anne living hall, but its more regular shape and undramatized relation to the stairs conform to the more restrained tenor of 20th-century taste.

Across the street, the frame house at 59 Fayerweather Street (1906; Winslow and Bigelow) follows a Federal prototype of about 1800 with its cube-shaped, three-story composition, low hip roof, and balustraded parapet (Fig. 270). It makes an instructive contrast with a comparable house at 22 Fayerweather Street (1898; Fig. 135), mentioned already as deriving from Elmwood. Such a comparison demonstrates how variety was achieved by accurately reflecting different phases of the Georgian movement. Yet a third example of prewar Georgian Revival building is 124 Brattle Street, designed in 1915 by John Ames for the developer Giles Taintor who erected a number of Brattle Street houses between 1903 and 1940. Sheathed in clapboards and with the ample scale of the period, the house has a characteristic three-bay entrance design with pilasters or columns separating the door and fan- and side lights framing the composition.

The reduction in size of American houses in the 20th century is graphically demonstrated by a comparison of three houses on Brattle Street built within two blocks of one another and within the space of fifty years (Figs. 271-273). The comparison is the more incisive since all three emulate the pleasant but somewhat unusual 18th-century practice of combining brick end walls with wooden front and rear facades. The Brewster house at 145 Brattle Street of 1887 (now an office of the Armenian Holy Trinity Church) exemplifies the large scale of the period by the enormous gambrel roof providing headroom for a full third story with an attic above. The house, discussed earlier, also shows how the Queen Anne-Colonial Revival movement prepared the way for the later Georgian Revival. Noticeably smaller but still ample is 114 Brattle Street (1903; John Ames). Dating from 1930 is 140 Brattle Street (William Murney), a fairly large house by today's standards but almost miniature in comparison with the Brewster house across the street.

270. 59 FAYERWEATHER ST., 1906. WINSLOW & BIGELOW

271. 145 BRATTLE ST., 1887. ANDREWS & JAQUES

272. 114 BRATTLE ST., 1903. JOHN W. AMES

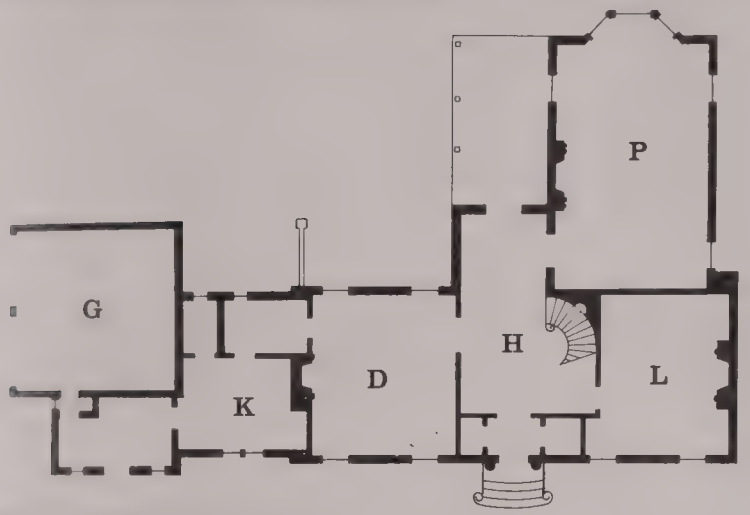
273. 140 BRATTLE ST., 1930. WILLIAM MURNEY

274. 4 GRAY GARDENS WEST, 1922. HOWE & MANNING

The levels of craftsmanship and archaeological accuracy with which Georgia details are reproduced should also be noted. A few designs copy the past s accurately that one must look sharply to identify them. Exceptional care wa lavished on the design and execution of houses like 10 Fayerweather Street (1936; William Duguid) whose doorway recalls those of the Connecticut Riv valley, 146 Brattle Street (1939; William Duguid) (Fig. 136) which is a truncate version of the 17th- and 18th-century Lee-Nichols house up the street (Fig 100), or 115 Coolidge Hill (1926; George Whiting) (Fig. 111), a convincing facsimile of an early 18th-century dwelling. A prosperous New England farm house of about 1805 provides the inspiration for 4 Gray Gardens West (1922 Howe and Manning) (Fig. 274), while 2 Gray Gardens East (1930; Duguid and Martin) emulates the much more formal work done in England about 1740. (Other examples of Georgian Revival work were mentioned when discussing th 18th century.)

The designer of a Georgian Revival house after the first war was allowed few alternatives than one working earlier, for economic changes required smalle houses with simpler decoration. A plan with a narrow center hall emerged as th most practical because it provided circulation but saved footage; this in turn indicated symmetrical treatment of windows about the entrance. Whether a sid porch or sun room was included was a relatively minor option, as was a choice i fenestration or of building material. Clapboards and shingles, so long preferred i Cambridge, continued to be used, but brick veneer over conventional wood framing gained in popularity. Stucco was less prevalent in the 1920's than before the war and ceased to be used in the 1930's. More instructive of what goes within the house than the formal facade with regular fenestration are the minor elevations in which window sizes and placement vary greatly as a consequence of interior requirements for rooms like kitchens, pantries, and bathrooms. In larger houses, the rigid, rectangular mass of the 18th century gives way to a plan with projecting ells, porches, and garages responding to the specialized rooms inside

275. 148 COOLIDGE HILL ST., 1929. DUGUID & MARTIN



276. 148 COOLIDGE HILL ST. PLAN

A good example of this—and one of the more elaborate houses in this period—is 148 Coolidge Hill (1929; Duguid and Martin) (Figs. 275-277). In order to obtain space for a front library, the living-room was displaced to a rear ell where it opens onto a pleasant terrace and garden by means of large windows and doors. The dining-room on the other side of the entrance hall is fairly narrow, with windows on both front and rear elevations to provide light and cross-ventilation. An unexpected feature of this plan is the delightful circular staircase which offers a welcome relief to the ubiquitous straight-run stairs paralleling the hall's axis. Of such deviations of plan, however, the regular five-window facade of 148 Coolidge Hill gives no hint. The kitchen and garage wing also fronts the street, so large that it could not be omitted as part of the formal design, but, in an attempt to legitimize this element of the composition, the architect endowed the kitchen door with a confusing monumentality.

A smaller and more regular example of Georgian Revival work but one designed with considerable expertise stands at 60 Fresh Pond Parkway (1922; Alden and

277. 148 COOLIDGE HILL ST. STAIRWAY

Parker) (Fig. 278). Without complicating the framing of the roof, the facade is provided with a pleasant focal accent in the projecting entrance pavilion whose three-bay composition with large windows imparts a note of elegance. The detailing of the pavilion cornice and door frame has a crisp, refined quality not encountered in stock millwork.

Vernacular buildings are less distinctive, but the effect of a whole street of Georgian Revival houses such as those on Larchwood Drive—mostly dating from the early twenties—is pleasant. In plan and scale they are similar to one another, and more than half contain sun rooms or open porches. They also indicate how many solutions there are to the problem of fenestration: the traditional five-window design, windows consolidated into banks, or dissimilar groupings on the two floors. By this time the traditional 6/6 window has regained general acceptance. Architectural embellishment is generally reserved for two places on the facade: the entrance and the side porch or sun room; the main cornice generally follows a simple, boxed design, though a few designs employ exposed rafters and hip roofs. Entrance compositions are customarily of three types: a door framed by pilasters and capped by a pediment, a shallow entrance porch with free-standing columns, or a door flanked by sidelights capped by a fanlight; sometimes two features are combined. All the elements are mill produced, and the moldings lack the subtlety and variety of hand-worked joinery.

278. 60 FRESH POND PARKWAY, 1922. ALDEN & PARKER

279. 26 HUBBARD PARK, 1894. F.R. ALLEN

280. 202 BRATTLE ST., 1903. ALLEN W. JACKSON

281. 177 COOLIDGE HILL ST., 1927. W.T. ALDRICH

Georgian Revival work done after the Second World War undergoes further simplification as shown by 6 and 12 Old Dee Road (1948), 20 Follen Street (1949), 17 Gray Gardens East (1958) and the four Cape Cod houses on Aberdeen Court (1941). Indeed, the only things that seem to relate such houses to the Georgian tradition are the pitch of the roof and the combination of wood and brick.

In the 1920's the Georgian and Medieval Revivals are joined by several other styles, the Dutch Colonial, French Provincial, and Mediterranean manners. In Old Cambridge these occur in limited numbers and their differences from the principal revivals are not profound. A hallmark of what was called the Dutch Colonial is a gambrel roof that rises from the level of the second floor but is interrupted by shed dormers that extend entirely across the front and back elevations to provide second-story headroom. Wood trim used for entry and porch columns is interchangeable with that used for Georgian Revival designs. Of Dutch Colonial, 237 Brattle Street (1919) is a large example; 72 Fresh Pond Parkway (1915, Charles Greco), a notably well-integrated design; while vernacular examples are 99, 101, 103 Fresh Pond Parkway.

Another mode sought inspiration from French chateaux or steep-roofed houses in Normandy. This taste was too ambitious for ordinary commissions, but it is represented by two fine examples: 177 Coolidge Hill (1927; W.T. Aldrich) (Fig. 281) and 4 Fayerweather Street (1941; David Barnes). A smaller example—with a good entrance—is 34 Larchwood Drive (1929; Duguid and Martin).

Tile-roofed Mediterranean dwellings with patios and warm-colored stucco walls appear to have been too exotic for Old Cambridge tastes, and instances of these are mentioned, not because they are distinguished, but because they exist. The largest is 40 Larch Road (1927; H.B. Smilie); vernacular examples are found in Gracewood Park and Channing Circle.

Contemporary Design

Despite a shortage of building sites, Old Cambridge has accumulated a representative collection of modern houses. A few pioneering examples were built in the late 1930's, but a preference for contemporary design was not firmly established until private construction was resumed following World War II. A rough count of new dwellings erected in Old Cambridge between 1946 and 1960 indicates that 28 houses from a total of 48 are of modern design.

One may think of modern architecture as a fairly uniform movement, but a review of one-third of a century of contemporary building in Old Cambridge shows how much change has taken place. We are fortunate that enough examples exist to chart this development. Three phases can be distinguished: the late thirties, the postwar boom of the fifties, and the 1960's.

282. 197 COOLIDGE HILL ST., 1935. HOWARD T. FISHER

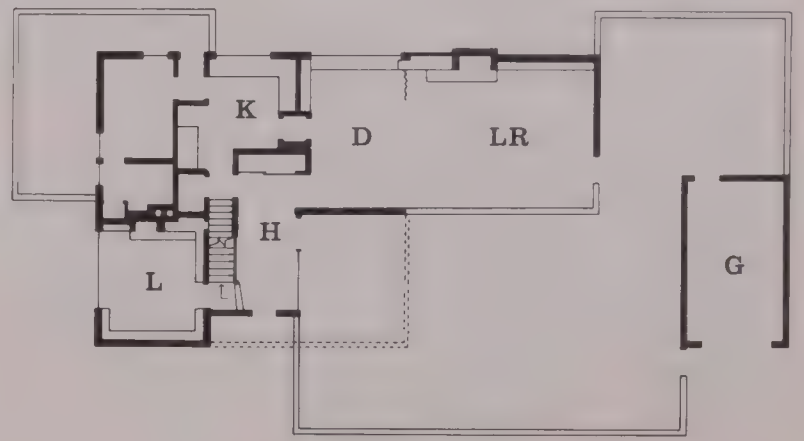
The city's first modern house dates from 1935 (Fig. 282). From plans drawn by ward T. Fisher for General Houses, Inc., of Chicago, the W.B. Bowers house s erected at 197 Coolidge Hill in one corner of the Edward Forbes estate. The ign is "modernistic," containing many stylistic tricks that Americans saw for first time in demonstration houses erected at the Chicago World's Fair of flat roofs (one of them utilized as an open deck), windows banked in izontal strips, corner windows, metal deck-railing, and a determined suppres- of conventional ornamentation. Despite the designer's dedication to func- some popular notions of what the modern style demanded dictated the nsistent horizontality which expresses itself in the use of horizontal window untins (while suppressing vertical divisions) and the horizontal metal string rses between stories. Undoubtedly more significant than such stylistic novel- was the concept of a prefabricated structure made of steel wall panels and panded metal floor joists. The panels, 4 by 8 feet and 2 inches thick, establish module which controls fenestration and room size. Despite these metal compo- ents, however, the rest of the construction is not fireproof: floors are of wood, erior walls have wooden stud construction, and sheets of Celotex are used to rface them as well as to insulate the exterior wall panels. In addition to being original design, the house was conceived as an experiment in modern tech- ology, and costs were drastically trimmed since this building was planned for housing. Subsequent owners have domesticated its machine-like quality by lful landscaping and interior decoration.

A second house of somewhat modern appearance (also built in 1935) stands at 5 Longfellow Park. Of regulation frame construction, the "modernness" of this ample is purely visual; the decision to employ a modern style of architecture as eclectic a decision as if the designer had used Georgian Revival or French Provincial. A decorative emphasis on horizontal lines is present here as in the Coolidge Hill house, and the articulated exterior walls, which suggest a system of prefabrication, are no more functional than the "sticks" used in the Stick style the 1870's. Much the same visual approach to modern architecture is also vident in a group of houses built between 1939 and 1942 on Brattle Circle; here the location of the houses in a quiet compound between two busy streets is more significant than innovations in design.

283. 4 BUCKINGHAM ST., 1937. CARL KOCH AND EDWARD D. STONE

The first outstanding contemporary Cambridge residence was built in the autumn of 1937 at 4 Buckingham Street (Figs. 283-284). Although the building permit bears the names of both Edward D. Stone and Carl Koch as architects, it was the work of the latter, who designed the house for his parents soon after his return from a year of architectural study in Sweden. Like so many important early buildings erected in Cambridge, this design was not the outcome of a tradition that had evolved locally but a direct importation from abroad—in this case the International style, which had already made important advances in northern Europe. One sees the International style in the flat roofs and blocklike massing, strip windows, emphatic contrasts of textures, absence of applied ornamentation, and in the interrelation of inside and outside space. Concrete block—at that time still a relatively new material in Cambridge—was used as the equivalent of European brick-and-concrete-slab construction.

284. 4 BUCKINGHAM ST. PLAN



The house is well adjusted to its small corner lot, and the large glass wall on the southwest front of the house is protected from the street by a high wall of rough stone masonry. This wall permits the living-room and the entrance hall to open onto a private outdoor terrace without sacrificing privacy. Dining and living areas are united to create a larger space.

When first occupied, the house was a great curiosity, and the many people who came to see it were generously received by the owners. Tastefully furnished with contemporary furniture and fabrics, in large part imported from Sweden, the visual effect it created was warm and inviting, and it proved to many skeptics beyond a doubt that modern architecture was not necessarily cold and impersonal. Indeed, the Koch house played an important role in converting a whole generation of architectural students at Harvard and MIT to the cause of modern architecture.

Two other prewar houses of importance must be mentioned. The small house that Philip Johnson built for himself at 9 Ash Street in 1941 demonstrated for the first time in that important designer's career that he had mastered the rigid discipline of Mies van der Rohe. By isolating a volume of outside space and fusing it to the inside by means of high encircling walls, he was able to double the effective visual space of his dwelling. The house fulfils its architectural program of providing living quarters and privacy on a city street, but it is unfortunate that the program concerned itself only with the occupant and not with how the house affected its environment. The building is important historically because of the subsequent leadership its designer achieved in the field of American architecture but, as the first work—or at least a very early one—of an important architect, it does not equal the quality of Ithiel Town's efforts at 88 Garden Street (Figs. 140-142).

Walter Bogner, long associated with Walter Gropius at the Harvard Graduate School of Design, was responsible for the brick house at 45 Fayerweather Street in 1940 (Fig. 285). Larger than any of the modern houses mentioned thus far, it is situated on a large wooded site, the earlier location of the B.G. Smith house, one of the first dwellings erected on Reservoir Hill. Only the use of antique red brick keeps this building from being a textbook example of International design, though it recalls the heavy geometry of certain early brick residences by Mies van der Rohe in Germany. Indeed, the beautiful texture of the brick does much to enliven the strong geometry of this composition. The house is well sited, with a living terrace and conservatory on the south, while a large tree-filled yard on the north gives a feeling of the outer suburbs.

Two other prewar houses should be mentioned. E.G. Johnson designed 91 Washington Avenue in 1941 for an unusual rear-of-lot location on top of Avon Hill. The garden elevation is nicely done, yet the roof of the carport that faces the street is supported by canted steel columns, a quaint reminder of what some designers of that decade thought was "modern." The large house at 11 Berkeley Place (1940; G.E.B. Hill, enlarged in 1961) is a good representative of the wooden International style building done in northern Europe (Fig. 286). As in practically all these first modern houses the roof is flat, and strip windows combine fixed glass panels and undivided steel casements. The design is particularly well adapted to its location.

285. 45 FAYERWEATHER ST.,1940. WALTER BOGNER

286. 11 BERKELEY PL., 1940, 1961. G. E. B. HILL

If Cambridge had been deliberate in its acceptance of modern architectur before the war, there was no hesitation afterward. Design picked up where it had been cut off with several houses built in the late forties conforming to Inter national-style canons. Only in the fifties did architects begin to develop a mor personal or a more "American" expression. Carl Koch designed two interesting houses on the Forbes estate at Gerry's Landing next door to the pioneer venture of 1935. The smaller house (1946) was comparable to the architect's more famous group of houses on Snake Hill in Belmont. The larger house of 1948 at 40 Gerry's Landing Road takes advantage of a hillside location and a southeastern exposure to provide a splendid two-story plant room with large expanses of glass (Fig. 287). A feeling of openness and spatial flexibility suffuses the interior, as one sees, for example, in the main staircase of metal with open risers

Of comparable International style but smaller is the house designed by The Architects Collaborative at 18 Old Dee Road in 1949. Of fan-shape plan to fit an irregular lot, the house retains the almost flat roof that was preferred by early practitioners of the modern movement.

287. 40 GERRY'S LANDING, 1948. CARL KOCH

288. 22 FOLLEN ST., 1951. CARLTON RICHMOND

289. 13 KENNEDY RD., 1963. JAMES FREEMAN

290. 4 KENNEDY RD., 1967. DECK ASSOCIATES

the 1950's, however, it was fashionable to express the pitch of the roof, be it ...rd, ridge, or butterfly. There was also a tendency to give more emphasis to ...fferences of materials. Whereas the first International-style designers in this ...untry painted wood white and laid it as flat as possible to imitate the stuccoed ...sonry used in Europe, architects of the 1950's began to emphasize "woodi-...ss" by giving it a natural stain or by emphasizing the way it was laid. One is ...ware of attention to material in the house at 5 Hemlock Circle, which James Hopkins designed for himself in 1956 or in the two faculty houses at ETS ...igned in 1954 by Hugh Stubbins. In these examples the generous overhang of ... pitch roof subdues the sharp, rectangularity of the early work. In other ...amples, like 23 Lake View Avenue (1954; Carl Koch) and 26 Reservoir Street ...55; F.S. Coolidge) articulation of the building into independent masses ...lates edifice to site and creates sheltered outside terraces. Concern for giving ... design a New England reference seems to have guided two architects in ...signing homes for themselves. Carleton Richmond's use of wood and the ...enestration scale in his house at 22 Follen Street (1951; Fig. 288) allows it to ... admirably into a delightful old street of 19th-century residences. Similarly, Kenneth Redmond's selection of clapboards—as well as the subdivision of window walls into bays the width of traditional windows—keeps his house at 11 Reservoir Street (1966) in scale with an older house next door with which it shares a lawn. On the other hand, the purple brick and harsh geometry of the much larger contemporary house across the street is quite antithetical to its location.

The 1960's have witnessed a continued search for an architecture related to its time and place, and during this period one might say that ideas formulated by the International style of Europe have been successfully domesticated in America: no longer, as in the late 1940's, is there just one architectural idiom which the designer must use if he wishes to be considered "modern." On the other hand, Cambridge architects are not caught up in the frantic scramble for novelty and personal expression that infects some parts of the country. The new variety can be gauged by contrasting neighboring houses at 13 Kennedy Road by James Freeman (1963; Fig. 289) and 4 Kennedy Road by Deck Associates (Fig. 290). Even work by the same firm may differ and vary in quality as at 61 Highland Street (1958) and at 46 Fayerweather Street (1968), both by Geometrics, Inc. An interesting design, built on the foundation of a house that had burned, was produced by F.F. Bruck at 11 Gray Gardens East in 1962.

291. 133 BRATTLE ST., 1971. HILL, MILLER, FRIEDLANDER, HOLLANDER

Old Cambridge's most recent contemporary house has just been completed at 133 Brattle Street (1971; Hill, Miller, Friedlander, Hollander) (Fig. 291). The design was conditioned by a number of factors: prescribed building lines, controls of limited preservation restrictions, and the fact that the garden and terrace had to be located at the rear of the shallow lot because of the heavy traffic along Brattle Street. The interesting prismatic character of the design results from the way the wedge-shaped building is maneuvered onto its restricted site.

Perhaps the city's most successful recent dwelling (1966; Fig. 292) was designed by Hugh Stubbins for his own occupancy at 199 Brattle Street. With the reasonable wish to insure privacy on a busy corner location, the architect enclosed the grounds with a high fence—something that probably would not have been permitted in a historic district. But the beautifully weathered boarding blends with trees, foliage, and the house itself so that the grounds do not look as though they had been barricaded. The mass and proportions of the building and the slope of the roof are appropriately scaled for the neighborhood. Although the house employs some windows and sliding doors of considerable size, these open into private areas that are walled and thus do not disturb the scale of the streetscape, a particular obstacle in properly relating modern houses to an older environment. If all modern architects were as considerate of their surroundings, zoning and controls for historic districts would be superfluous.

Three interesting examples of modern row housing have been erected in Old Cambridge in recent years. The row at 1-17 Bowdoin Street (1959) is actually subdivided so that each bay contains two units, one above the other. Simple fenestration, the choice of wood siding and careful landscaping avert the usual dreary appearance of row housing. This is even more true of the ten brick town houses on Chauncy Lane (1966; F.A. Stahl Associates) (Fig. 293) where breaks in the plane of the facade and changes in floor level make the entrance court an engaging and inviting area despite its restricted dimensions. Most recent are the

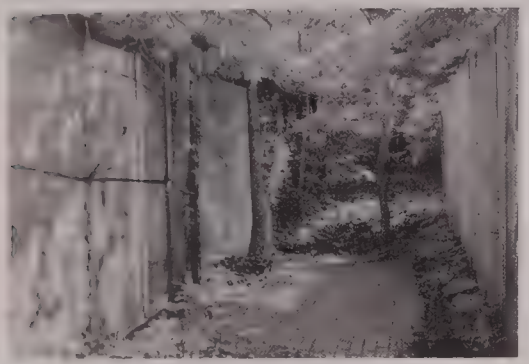
292. 199 BRATTLE ST., 1966. HUGH STUBBINS

293. CHAUNCY LANE, 1966. F.A. STAHL ASSOCIATES

faculty houses (1971) at the north end of the Radcliffe quadrangle facing Linnaean Street. Designed by Gourley and Richmond, the buildings are well related to the older dormitories they abut yet announce their different function as private houses (Fig 420).

Inasmuch as so large a part of recent Cambridge house improvement has taken the form of remodeling, this survey of recent architectural trends appropriately ends with observations on that topic. Three astonishing houses have emerged from the unpromising disarray of two derelict concrete garages. All make extraordinarily inventive use of existing structural forms and spatial restrictions, but their dimensions are so limited that photographs cannot convey the interest

144 UPLAND RD., 1957. PAUL RUDOLPH



SPARKS PL., C. 1920's. REMODELLED 1967. ANABEL AND SHELDON DIETZ

38 LAKE VIEW AVE., C. 1860, 1960

297. 24 CRAIGIE ST. ADDITION, 1893. REMODELLED 1971. GRAHAM GUND

these buildings hold. One structure at 144 Upland Road was remodeled by Paul Rudolph in 1957 (Fig. 294). On Sparks Place, Sheldon and Anabel Dietz coaxed two remarkable houses from a warren of garages too small for modern automobiles (1967; Fig. 295).

In the more successful remodeled houses designers refrain from trying to eradicate the character of the old building, just as they do not attempt to duplicate it; instead, the additions are frankly modern but their design bears a thoughtful relation to the building that is being modified. An imaginative addition of an enclosed stairway and new entrance at 38 Lake View Avenue enabled an old, single-family, side-hall house to be changed into an interesting two-family dwelling without disturbing the architectural character of the facade (Fig. 296). Similarly outside stair towers of contemporary design at 13 Ash and 103 Irving Streets provide access to new upstairs apartments without compromising the main facades. A frankly modern room replaces an old front porch without disturbing the rest of the house at 15 Arlington Street, and in several cases interesting fenestration in the gable end of a house has been obtained by exposing the framing members and glazing the rest of the gable. Examples of this practice are seen at 7 Willard and 16-22 Gray Streets. Often, as at 8 Follen and 160 Brattle Streets, where large windows and sliding glass doors are needed to let in more light, they have been confined to elevations not seen from the street. Finally a frankly modern entrance and stairwell were constructed to provide ingress for a new living unit at 24 Craigie Street in 1971. Though interior changes here were drastic, external modifications other than this addition were slight, and they do not detract from the impressive formality of the main part of the century-old Denman Ross mansion of which the wing is a part (Fig. 297).

298. DETAIL OF BURGIS–PRICE VIEW OF 1743.
AT RIGHT: THIRD MEETINGHOUSE, 1706, DEMOLISHED 1756

PART FIVE: PUBLIC ARCHITECTURE

The first religious and civic buildings of Old Cambridge were situated in the center of the village but have long since disappeared, for that area has been subjected to repeated campaigns of rebuilding. Aside from Harvard University buildings–to be dealt with in the last section–only one old building remains, 18th-century Christ Church. But since a good deal of information is available about the early buildings, some of it unearthed during the course of the present survey, we summarize what is known about them though with no pretensions at being definitive.

Religious Buildings

Early meetinghouses played a central role in the life of Old Cambridge for they were used not only for worship but also for town meetings, for college ceremonies such as Commencement, and sometimes for court sessions. The site of the first meetinghouse–erected by December 1632–is known to have been the southwest corner of Dunster and Mt. Auburn Streets. Its exact appearance is not known, but from references it may be inferred that it was probably square in plan and had a ridge roof, both features unusual for New England of that day; the orientation of the pulpit is not known. Records of a pulley for the bell rope in 1640 and of building repairs the previous year suggest that the bell "turret" (belfry) may not have been added until that date, even though the congregation had owned a bell since 1632. The building was small and must have been poorly constructed, because in February 1650 repairs of the fabric were necessary, among them a new "four square" (hip) roof. Within a month, however, the old fabric was found to be too decayed and perhaps too small to warrant repair, and replacement was ordered. In 1652 the old meetinghouse was demolished and the lot sold.

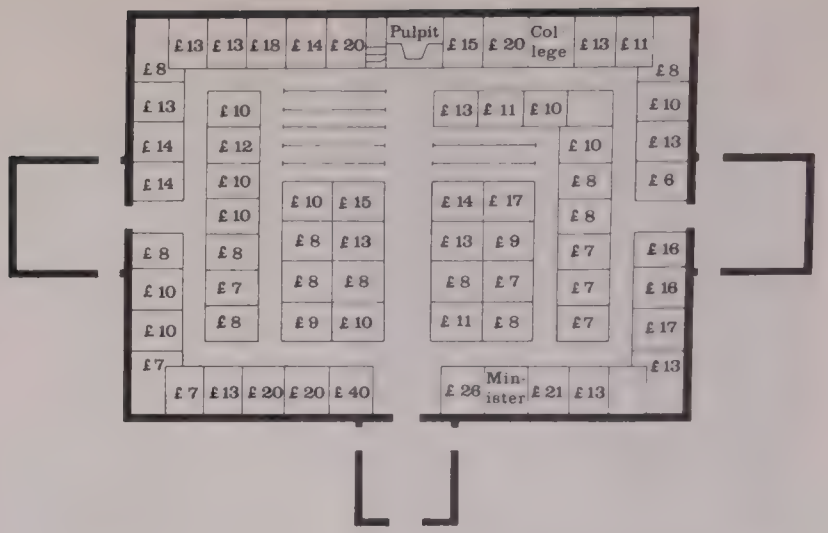
Watch House Hill was the location of the second meetinghouse. By today's landmarks about halfway between Lehman Hall and the subway kiosk, this structure is likewise known only from references in the *Towne Book*. About 40 feet square, it had a truncated hip roof, from which probably rose the bell "turret;" the roof slope was steep and may have been interrupted by gables. The pulpit seems to have been situated–contrary to general usage–on the west rather than on the north side. A gallery for Harvard students on the east was in use by 1654; south and north galleries were built in 1661 and 1673. Since the order relating to the enlargement of 1673 specifies that the north gallery be extended "soe far as the Roofe does not hinder," one infers that the meetinghouse was not quite two full stories in height. Members were seated on long, narrow benches, men separated from women, adults apart from children, each individual assigned to a specific place appropriate to his rank in the community by the "seaters of the meeting." By the 1680's these early benches were beginning to give way to pews which the well-to-do provided for their families.

After serving for fifty years, this second meetinghouse was replaced by a third which was ready for use in October 1706 (Fig. 298). The cost was met by a £280 levy placed on the inhabitants and by the college contribution of another £60. From descriptions and from an engraving of 1743 we know that this building faced south, had a spired tower and a ridge roof running parallel to the facade. The meetinghouse may have been increased to a height of three stories in 1718, because documents refer to a "raising" in connection with the installation of a new gallery. (Similar three-tiered meetinghouses were built in Lexington and Concord in 1711-12.) It is uncertain whether the date of the spired tower was 1706 or 1717, but in either case it represents an early instance of this feature in New England, where the first example is found in 1699 at the Brattle Street meetinghouse in Boston. This third edifice also served for fifty years before a successor was required in 1756.

Of the fourth meetinghouse we have information from numerous illustrations and descriptions. Placed directly behind (north of) its predecessors, it followed the usual rectangular plan (71 by 51 feet) with the entrance on the long side (Fig. 299). Avoiding the ritualist Church of England axis, which emphasized the altar, the meetinghouse interior was focused on the pulpit against the long (north) wall opposite the main entrance. A large, roundheaded window between the first and second levels arose behind the pulpit, while an interior gallery ran around the other three sides. A one-story porch on the south served as the main entrance, and a two-story porch at the east end contained stairs by which students reached their section of the gallery. A tower containing stairs was attached to the west gable end and was capped with a handsome two-story octagonal spire closely resembling that of Old South Church in Boston.

Information about the social and financial organization of an 18th-century meeting is provided by a seating diagram for the 1756 structure, along with the amounts paid by members for their pews (Fig. 300). From these documents it appears that the most sought-after locations were those against the outside walls under the gallery–not, as one might assume, in the center of the main floor. Was it the cold drafts or the burning gaze of the preacher from the elevated pulpit that intimidated prosperous churchgoers into taking these back seats? The price of pews ranged from £6 to £40, and they together account for £836, somewhat

299. FOURTH MEETINGHOUSE, HARVARD SQUARE, 1756.
NICHOLS DRAWING OF 1803. DEMOLISHED 1833



300. FOURTH MEETINGHOUSE. SEATING PLAN
AND PRICE PAID FOR PEWS BY ORIGINAL OWNERS

more than half the approximate £1493 cost of the meetinghouse. Harvard College contributed one-seventh of the total in exchange for the privilege of having one wing of the gallery reserved for its students and faculty and of using the building for Commencement.

Both the first and last periods in the life of this building were fraught with division within the membership. Scarcely had the fourth meetinghouse been completed before a group of prosperous members broke away to establish Christ Church, while its last years witnessed the agonizing Trinitarian-Unitarian controversy that resulted in a permanent division in 1829. The majority of the congregation, which leaned toward Unitarianism, retained ownership of the old meetinghouse, yet this group soon decided to build a new house of worship, the present First Parish Church completed in 1833 (Fig. 302). The old (fourth) meetinghouse was sold to Harvard, which demolished the structure but retained the lot on which it stood. The Trinitarians, too, constructed a new church (to be discussed later).

In connection with these early meetinghouses, mention should be made of the parsonage. A house for the minister was not provided by the town until 1670, because the first long-term minister, the Rev. Thomas Shepard, owned a house. In 1670, however, a 4-acre lot at the east end of Braintree Street (a site now in part occupied by Widener Library) was acquired by the town, which built a two-story house at the cost of £263. With dimensions of 36 by 30 feet, it must have been of the usual center-chimney, two-room plus lean-to plan, along with a barn and an "office-house" (privy). Its yard and orchard were fenced and planted with trees. At first only part of the house was finished; seven years later the kitchen was bricked, the floor of the kitchen chamber was double-boarded, and the hall and hall chamber plastered.

Around 1718 Old Cambridge must have been prosperous, for in that year the town voted to build the new parsonage as well as to carry out the enlargement of the meetinghouse and to replace the old jailhouse by a new one (1715). In the long run the parsonage was merely remodeled, not replaced, and remained in use from 1670 until its demolition in 1843.

One of the country's most famous pre-Revolutionary buildings, Christ Church, is one of the nine buildings known to be the work of Peter Harrison. It illustrates the dictum that it takes a good client to obtain a good building. The parish building committee knew what it wanted, and, though Harrison took his time, he gave this group almost exactly what it asked for: a wooden structure of 60 by 45 feet, with three aisles, no galleries, and an entrance tower without a spire (Fig. 301). Essentially one might say that the design is a much simplified version of the granite structure the architect had already designed for King's Chapel in Boston. (The tower colonnade of King's Chapel was added later.)

The main axis of Christ Church centered on a free-standing central pulpit behind which was the inconspicuous altar in a shallow apse. Although the original building was wide for its length, attention is clearly directed to the pulpit and altar by the coved ceiling of the nave and by two rows of columns that divide the interior into three aisles. The exterior walls are plain except for the heavy Doric frieze and cornice and the sequence of stately roundheaded windows. These simple features, in addition to good proportions, impart a sure monumentality. Although the building committee had called for roughcast, a form of stucco used earlier on the Lee-Nichols and Henry Vassall houses (both Lee and Vassall were members of that committee), the exterior walls were faced with flush siding whose freshly painted surface was probably dusted with sand to simulate smooth stone. In watercolors dating between 1781 to 1821 the exterior

301. CHRIST CHURCH, 0 GARDEN ST., 1760. PETER HARRISON

walls of the church appear variously as yellow, buff, or dirty grey, but trim was always white, doors red. Abjuring a staged spire, the entrance tower was nicely finished off with a simple hip roof and cross; the present belfry was not added until 1766 and was modified in 1790. About the whole design there is a confident and authoritative unity that most colonial buildings lack. No more than a gentleman-architect, Peter Harrison had observed buildings in England and possessed a theoretical understanding of architectural design that was rare in the colonies. His work therefore presents a contrast to the 18th-century houses of Cambridge whose designs tend to be a compilation of separate elements.

When Christ Church was built in 1761, timber of great size could still be found in this vicinity; logs for the interior columns were cut at the headwaters of the Charles River, floated down to Cambridge, and their centers bored out to prevent warping. For economy the first capitals were Tuscan, the present Ionic caps having been carved in 1826.

Christ Church was dedicated only fourteen years before the outbreak of the Revolution and it suffered badly during the war at the hands of patriots (though temporarily repaired for a New Year's Eve service in 1775). Later on its fortunes did not improve, and the parish was without a rector until 1829. Renovation was carried out in 1790 and in 1825-26, but by 1857 the congregation had so increased that an enlargement was necessary. At that time the building was expanded by the simple expedient of cutting through the church, moving back one bay and the apse 23 feet, and putting two new bays into the intervening space. Such an enlargement had obviously been foreseen by the builders, because the original frame was spliced and pegged in such a way that the 19th-century workmen could separate the two parts of the fabric by simply removing the pegs. The remarkable thing about this enlargement was that, except for the east windows, the builders did not attempt to modernize the old structure according to Victorian tastes; new sections of the fabric repeat the old in every detail, and

302. FIRST PARISH CHURCH, 1833. ISAIAH ROGERS. PHOTO BEFORE 1860 SHOWING (THIRD) COURTHOUSE CUPOLA IN LEFT BACKGROUND

in this respect the work represents an early milestone in the rediscovery of the aesthetic value of Georgian architecture by people of the mid-19th century. A later congregation felt that it could improve on the interior color scheme, however, and in 1883, under the direction of Henry Van Brunt and Frank H. Smith, a somber decor enlivened with stenciled patterns was adopted. Gigantic pre-Raphaelite seraphim hovered over the congregation like monstrous bats until the church was redecorated in 1920; a few years later the Romanesque pulpit was replaced and the lurid stained glass of the altar window covered over. In 1868 a parish hall was added in the form of a side wing, to be replaced by the present porticoed structure in 1897 (George A. Moore); when larger Sunday school quarters were required in 1948, a brick wing facing Farwell Place was constructed from designs by Charles Collens. Although the rectory at 1 Garden Street was built in 1820 (Fig. 149), it was not acquired by the church until 1916; in 1962 the parish bought the residence at 2 Garden Street to use as a student center.

As we have seen, the theological controversy in Cambridge between Trinitarians and Unitarians ended in 1829 with a permanent division of the congregation. Even though the Unitarian faction retained ownership of the old meetinghouse of 1756, it was decided almost at once to construct a new house of worship which was dedicated in December 1833. As in the past, Harvard contributed to the expenses of the new structure in return for the right to use it at Commencement, a privilege it exercised until 1873.

The new home of the Unitarians, now known as First Parish Church, is an interesting example of Folk Gothic architecture by Isaiah Rogers, with its "Gothick" qualities largely confined to a decorative veneer of pointed arches cut from wooden boards (Fig. 302). The original specifications called for exterior surfaces to be dusted with sand after painting. Though the tall wooden spire survived the hurricane of 1938, a second storm in 1954 toppled some of the

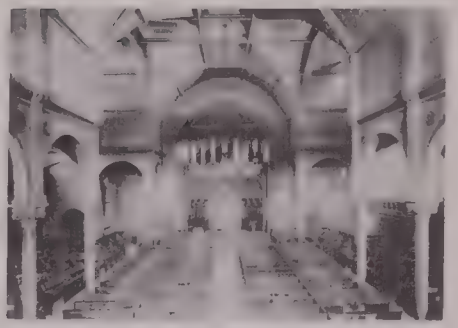
303. ST. PAUL'S CHURCH (ORIGINALLY SHEPARD CONGREGATIONAL SOCIETY), MT. AUBURN AND HOLYOKE STS., 1830. HENRY GREENOUGH. ENLARGED 1852, 1890. PHOTO PUBLISHED 1895. DEMOLISHED 1915

corner finials, and the subsequent renovation removed much of the fanciful wooden veneer, leaving the exterior rather barren. Something of the flavor of the early Gothic Revival is recalled by the tall windows with thin, dry tracery and diamond panes as well as by the wooden "buttresses" of absurdly meager projections. A stone parish hall and church-office wing were added in 1901. Despite a complete restoration of the sanctuary in the same year, using the original plans, the interior was thoroughly remodeled in a tepid Federal Revival manner in 1928.

The Orthodox faction (in the minority) rallied around the old minister, the Rev. Abiel Holmes, drew up articles of incorporation as the Shepard Congregational Society, and planned a new church edifice. (Until that was completed in 1831, the group met in the old courthouse.) The congregation's new home at the northwest corner of Holyoke and Mt. Auburn Streets (now part of the Holyoke Center site) was designed by Henry Greenough, whose work was illustrated on page 63 in *Mid Cambridge*. A version of the broad-pilastered Greek Revival style, this wooden structure was subjected to significant enlargement in 1852 as the result of innovations in religious education introducing the Sunday school. To provide necessary headroom on the ground floor, the church was raised 5½ feet; at the same time, it was moved 6½ feet to the west to allow widening on either side. In use until 1872 (when the congregation moved to its present edifice), the building was sold in 1873 to the Roman Catholic diocese to serve as the first home of St. Paul's parish. The old structure was further enlarged in 1890 with sizable additions (Fig. 303) to the front and rear but was demolished in 1915.

The second home of the Shepard congregation—now First Church, Congregational—was the most costly church in the city ($135,000) at the time of its dedication in 1872. Designed by Abel C. Martin, who lived a few blocks away on Follen Street, it is built of slate and red granite, and its beautifully proportioned spire (completed in 1873) originally rose 170 feet to dominate a conspicuous corner of the Cambridge Common (Fig. 304), a site originally occupied by the Abraham Hill house of ca. 1718 (Fig. 137). The tower was rebuilt with a lower slate roof just before the 1938 hurricane. The splendid weather vane in the shape of a gilded rooster came from the New Brick or "Cockerel" Church on Hanover Street in Boston and dates from 1721, the work of Shem Drowne.

304. FIRST CHURCH, CONGREGATIONAL, 1870. ABEL C. MARTIN. PHOTO PUBLISHED 1875 BEFORE TOWER REBUILT IN 1938



304A. FIRST CHURCH, CONGREGATIONAL. INTERIOR

The auditorium in the shape of a T, with a spacious apse containing the pulpit, is clearly Medieval in inspiration and illustrates how far orthodox Congregationalists had moved from the deliberately non-ritualistic 17th- and 18th-century meetinghouses (Fig. 304A). The congregation's Puritan ancestors would have surely disapproved of the splendor of interior fittings and stained glass as well as of the provisions for heating. The polygonal vaulted ceiling does not reveal the true slope of the roof; the resulting space between the two surfaces was used to conceal ventilating ducts, an innovation at the time the church was built. On the other hand, galleries in the north transept for the choir (removed in the 1924 interior renovation) and over the entrance vestibule recall the galleries that often ran around three sides of early meetinghouses. The south transept gallery was deliberately omitted in order to emphasize the beauty of the long traceried windows filled with stained glass. A new parish hall and office wing designed by William McClean in 1926 replaces the small 1873 parish hall behind the chancel but successfully continues the material and design of the original building; the Lindsay Chapel was added in 1939 (Allen and Collens).

305. ST. PAUL'S CHURCH, 24 ARROW ST., 1915. EDWARD T. P. GRAHAM

306. ST. JOHN'S CHAPEL, 1868. WARE & VAN BRUNT. PHOTO OF C. 1890

Next in point of age are two Roman Catholic churches. St. Peter's parish on Concord Avenue began as an offshoot of St. John's, East Cambridge. The cornerstone was laid in 1849, and extensive changes, mostly internal, were made in 1889. In spite of the fact that contemporary descriptions referred to the building as "stone Gothic," the present broad brick pilasters and strongly projecting external cornices supported by brackets survive from the original building; but the Georgian Revival cast of the present exterior dates from a drastic remodeling and enlargement in 1914 and from a new steeple in 1955, both by Maginnis and Walsh. The Mansard rectory was erected in 1868, the parochial grade school in 1927, the convent in 1955, and the high school in 1959. The grade school occupies the site of a wooden schoolhouse which at one time had served as the Dunster public school before it was moved to this site in 1859.

Technically speaking, St. Paul's Church on Arrow Street is outside the limits of the Old Cambridge survey but, since the church clearly belongs to the Harvard Square area, it was not included in the volume on Cambridgeport. As we have seen, the parish was organized in 1873 when the diocese purchased the former Shepard Congregational Church for $20,000 (the price included furnishings and organ). Although that structure was enlarged in 1890, a new church was soon needed, and the present building was erected in 1915, one of the most striking churches in Cambridge—especially fine in its relation to an irregular site and in the dominant role its soaring campanile plays in the visual composition of the Mt. Auburn Street plaza (Fig. 305). The design of mixed Italian and French Romanesque inspiration was by Edward T.P. Graham. Profuse decoration takes the form of intricate brickwork on the facade and campanile and cast-stone trim around the entrances. This ornament has been criticized for a certain brittle, mechanical quality in comparison with the subtle craftsmanship of medieval prototypes. Yet as economic considerations force an ever greater simplification on present-day builders, the luxury of even this type of ornamentation will come to be better appreciated. St. Paul's parish has done considerable building in the neighborhood: the parochial school of 1889 at 29 Mt. Auburn Street and, opposite, a large brick rectory constructed in 1924 from designs by E.T.P. Graham.

Among churches that belong to the Harvard Square area yet lie outside the boundaries of the survey, we must mention the North Congregational Church (1845) at 1803 Massachusetts Avenue, the Harvard Epworth Methodist Church of 1891 facing the Common, the Old Cambridge Baptist Church (1867) at 400 Harvard Street, and the charming 1903 stone chapel of the Swedenborgians on Quincy Street. These were discussed in *Mid Cambridge* (pages 37-45).

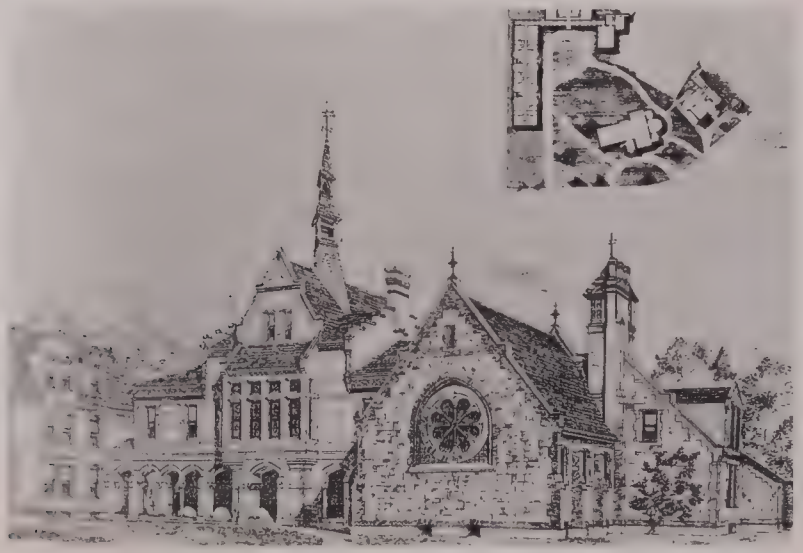
Despite the success of the Baptist and Congregational churches just cited, the handsomest Victorian version of Gothic architecture in the city is the chapel of the Episcopal Theological School. Superior even to contemporary essays by H.H. Richardson in the spirit of 14th-century English parish churches, this design of 1868 is by Ware and Van Brunt (Figs. 306-307). As in their scheme for the First Church in Boston (designed 1865, rebuilt in 1971 in a drastically altered form after a fire), the tower stands somewhat apart from the central mass of the composition, with the strong geometry of the stone tower contrasting with the complex shapes of the slate roofing that cluster about it. Thus the tower dominates the composition without having to rise to impractical heights.

Employing voussoirs of alternating brown- and cream-colored stone, the design indicates an awareness of contemporary Ruskinian theories in England, yet this use of polychromy does not compete with the tawny pudding-stone walls. The unusual plan for the chapel, by which entrance was gained from side doors halfway down the nave, was changed in 1967 when a main entrance was cut in the nave's end (west) wall. Considerable interior refurbishment was done at the same time.

307. ST. JOHN'S CHAPEL. INTERIOR BEFORE 1967 ALTERATIONS

The chapel appropriately dominates the ETS campus, and later buildings are congenial to it (Fig. 308). The earliest of these continued to use stone but added dark red brick trim to mark a differentiation from the chapel. This architecture slightly more inventive, with stepped gables, accents of Panel Brick decoration, and a polychromatic use of black brick, another indication of Ruskin's influence. Following the chapel in quick succession were the first dormitories (Lawrence Hall, 1872 and 1880), a library and commons building (1875), a refectory (1879), all by Ware and Van Brunt. These are grouped around three sides of the quadrangle, with the library (Reed Hall) announcing itself by an added side and greater height; a bell tower made this building look top-heavy until it was removed after the 1938 hurricane. Somewhat later (1893) the Winthrop Hall dormitory was constructed of stone just beyond the quadrangle.

306. EPISCOPAL THEOLOGICAL SCHOOL, 99 BRATTLE ST., 1872–80. WARE & VAN BRUNT. PERSPECTIVE AND PLAN PUBLISHED 1878 IN *AMERICAN ARCHITECT AND BUILDING NEWS*



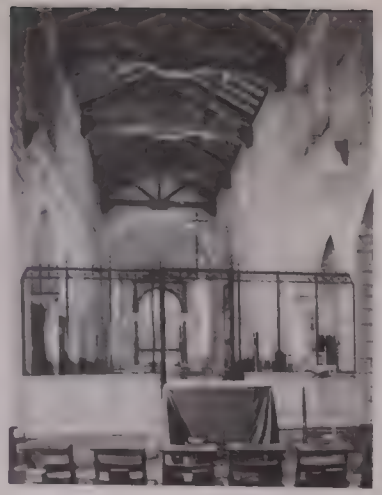
309. CHRISTIAN SCIENCE CHURCH, 13 WATERHOUSE ST., 1923, 1929. BIGELOW, WADSWORTH, HUBBARD & SMITH

The present century has seen the addition of three academic buildings: Wright Hall (the second library), 1911; the present dining hall, 1961; and Sherrill Library, designed in 1965 by Campbell and Aldrich. The first faculty houses were built on St. John's Road in 1924, and the Oliver Hastings mansion at 101 Brattle Street (Fig. 169) was bought in 1950 by ETS for offices and faculty apartments. In the early 1950's the school acquired the field behind the Longfellow house, extended St. John's Road, built two modern faculty houses (1954), and moved in four old houses from nearby that had been displaced by Harvard-Radcliffe expansion. Additional space for faculty residences was obtained with the acquisition of the Grozier estate at 168 Brattle Street in 1965.

During the present century, church-building has continued in Old Cambridge despite the stabilization and then decline in permanent population. Undoubtedly new churches have come to Harvard Square, as had other groups in the past, because of the presence of students with whom they wish to work. The Christian Science Church, built in two installments (1923 and 1929) from plans by Bigelow, Wadsworth, Hubbard and Smith, adds monumental emphasis and spatial definition to the prominent intersection of Massachusetts Avenue and Waterhouse Street (Fig. 309). Recognizable as a Christian Science edifice because of its central plan, Pantheon-like dome, and portico, its use of red brick and Georgian Revival detail is a concession to the location on Cambridge Common. The complex organization of interior space, with a two-story Sunday school in the basement and second-floor auditorium, could not be predicted from the serene exterior elevations.

The chapel of St. John the Divine monastery on Memorial Drive is the most exquisite small church in Cambridge. Built in 1936 from designs by Cram and Ferguson (the adjacent monastery was erected eight years earlier), it illustrates the sympathy and accuracy with which medieval forms—in this case 12th-century Burgundian—were sometimes reproduced (Figs. 310-311). The period

310. CONVENTUAL CHURCH OF ST. MARY AND ST. JOHN, 1936. CRAM & FERGUSON



311. ST. JOHN'S CHURCH. INTERIOR

312. MEMORIAL CHURCH, HARVARD UNIVERSITY, 1931. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

during which this kind of building could be done was of short duration: before 1900 few craftsmen or architects in America had the knowledge or skill to reproduce medieval forms so faithfully, while after World War II it was no longer economically possible. With First Parish Church of 1833 and the ETS chapel of 1869, St. John's illustrates how successive generations of American designers have conceived of Gothic architecture.

313. FRIENDS CENTER, 1916. A. W. LONGFELLOW MEETING HOUSE, 1937. WILLIAM DUGUID

Memorial Church in Harvard Yard, designed by Coolidge, Shepley, Bulfinch and Abbott in 1931, conforms to the Georgian precedents of Harvard building of that era (Fig. 312). As often is the case with revival architecture, this design surpasses its prototype in magnificence. The bell tower is inspired by Bulfinch's spire of 1806 for Old North Church, and though it is 5 feet lower (total of 170 feet) than its ancestor, it is combined with a Classical portico at the base that results in a lack of visual certainty as to how the tower is supported. The presence of a second portico at the front end of the building further confuses the churchgoer as to which one contains the entrance. Though barely connected with the auditorium, and certainly without historical precedent, the transept portico and tower that face the Widener Library nevertheless perform a visual function: they give access to the memorial chamber, provide a handsome background for commencement exercises, and serve as focal point for the extended yard. Memorial Church replaces Appleton Chapel, a somewhat uncouth pile which stood on the same site between 1857 and 1931.

The Friends Center on Longfellow Park began life in 1916 as a private residence the home of Longfellow's granddaughter, Mrs. Knowles; the architect was the poet's nephew, A.W. Longfellow. Bought by the Society of Friends in 1936, the meetinghouse was added in 1937 after designs by William Duguid, a leading exponent of the contemporary Georgian Revival in Cambridge (Fig. 313). The brick meetinghouse adheres to the material, style, and domestic scale of the Center, and together they contribute substantially to the environment of Longfellow Park, something, unfortunately, that cannot be said for the church of the Latter Day Saints opposite, built in 1955 from designs by Thomas and Tidd. Even though the architecture of the latter building is Georgian Revival and the material red brick (elements that usually ensure a degree of architectural congruity in Cambridge), there is an uneasy quality about it, the result of contradictions in scale between the gross fenestration and the attenuated proportions of the spire.

314. UNIVERSITY LUTHERAN CHURCH, 1950. ARLAND DIRLAM

At the corner of Winthrop and Dunster Streets, University Lutheran is the only church in Old Cambridge to follow a somewhat modern design (Fig. 314). Its rectangular forms are appropriate to the congested locality in which the church stands, yet the building is differentiated from its neighbors by simple fenestration and broad, plane surfaces. Designed in 1950 by Arland Dirlam, the church recalls the leading role played by the Lutheran denomination after World War II in the adoption of contemporary architecture.

Even though Holy Trinity Armenian Church accomplishes what its congregation desired, it can hardly be regarded as ideal in terms of urban design. Ostentatiously on the corner of Sparks and Brattle Streets, the church (designed in 1960 by John Bilzerian) stands apart conspicuously because of the unmitigated boldness of its massing and the grey brick of which it is built. While a design based upon traditional Armenian architecture of the 12th century is probably no more inappropriate to a 19th-century residential area in New England than would be one of Gothic, there is disadvantage in the injection of so large an institutional form into a residential district.

Civic Buildings

Besides its meeting- and schoolhouses, early Cambridge also boasted a courthouse, the village having been designated court town in 1636 and shire town when Middlesex County was created in 1643. The date of construction of the first courthouse is unknown; there are indications that the meetinghouse may have been used for the court before 1643 and for more popular trials thereafter. One early courthouse burned in 1671, and no record exists of the construction of another until 1707. It is possible that during those years some records were kept in Charlestown where an auxiliary court was established in 1652; however, in 1717 the General Court ordered all Middlesex records in Charlestown returned to Cambridge. The first structure about which we have specific knowledge stood between 1708 and 1758 at the south end of Harvard Square, its northeast corner coinciding with the southwest corner of the present subway kiosk (Fig. 13). A small frame structure (30 by 24 feet), it consisted of a single courtroom; permission was also granted to two enterprising merchants to build

315. (FOURTH) COURTHOUSE, HARVARD SQUARE, 1758. SERVED AS COURTHOUSE UNTIL 1816, MOVED 1841. DEMOLISHED 1930

and have the use of a ground story and cellar under the courtroom for shops, thus recalling to some extent the late medieval town halls of England. The ground floor two shops were separated by a central passageway 6 feet wide which contained stairs to the courtroom above. This building was demolished in 1758 when a successor was built, and the land on which it stood was conveyed by the Proprietors of Common Lands to the town in 1784.

The courthouse next erected (1758) occupied the site of the Harvard Coop (Fig. 14). A wooden structure on a high stone base with a hip roof crowned by a cupola, it was 30 by 40 feet, constructed in part with timbers salvaged from the third meetinghouse demolished two years earlier (Fig. 315). In appearance it bore a certain resemblance to early meetinghouses and schools and furnishes an example of the limited repertory of architectural forms within which the colonial builder worked. A cooperative venture between town and county, the premises were shared until the court was lured to East Cambridge in 1816 by the gift of new and larger quarters. The building continued to be used for town meetings until a new town hall was built in Cambridgeport, and it served the Congregational Society temporarily while its new church on Mt. Auburn Street was being built. In 1841, when the site was needed for the Lyceum, the old structure was moved to the corner of Brattle and Palmer Streets where it served first as a billiard parlor and bowling alley, then as the first gymnasium for Radcliffe, and finally as a warehouse; it was not demolished until 1930, and as late as 1922 the Cambridge Historical Society was looking into the advisability of preserving and restoring it.

The growth of East Cambridge and Cambridgeport deprived Old Cambridge of some of its symbols of leadership. The courthouse and jail were, as just noted, transferred to East Cambridge in 1816, and the first town hall, erected in 1832, was located on Norfolk Street in Cambridgeport. Thereafter the only civic buildings built in Old Cambridge were branch fire and police stations. The first firehouse was constructed in 1847 when a paid fire department was established; (until then the fire brigade had been voluntary). Enlarged in 1864, this brick building formerly stood at 23-25 Church Street. A police station was also installed next door in a brick structure of 1864 which survives with an unaltered second story like that of a dwelling (Fig. 316). But in 1874 these buildings were superseded by more ample quarters in a new City Building (Fig. 317) facing Eliot Square from the site now occupied by the Treadway Motor House.

316. CHURCH ST. IN C. 1890. AT LEFT: 31–33 CHURCH ST. (ORIGINALLY POLICE STATION), 1864. AT RIGHT: 23–25 CHURCH ST. (ORIGINALLY FIREHOUSE), 1847. ENLARGED 1864, DEMOLISHED 1922

317. CITY BUILDING, ELIOT SQUARE, 1874. J.H. LITTLEFIELD. DEMOLISHED 1935

The City Building was erected at a time when city offices were beginning to outgrow the first city hall in Central Square (housed in the former Athenaeum; see *Mid Cambridge*), and the new building may also have served to placate Old Cambridge resentment of its loss of city and county offices. In addition to quarters for police and firemen, the facilities included a small-claims court and rooms that could be used for school or ward meetings. Most of the top (fourth) floor was occupied by an armory 48 by 74 feet. For some years this room was a center of social life and served for civic and organizational affairs as well as for private balls, as recalled by Lois Lilley Howe in 1944. In this capacity it replaced the old Lyceum and was in turn superseded by Brattle Hall built in 1889.

Three stories high with a mansard roof and a central clock tower, the City Building was designed by J.H. Littlefield. When it was authorized in July 1874, a period of tight money, there were protests that the cost ($75,000) was excessive. It was not handsome, and its demolition in 1935 was no loss. The fire station was then transferred to the present location at the Cambridge, Broadway, and Quincy Street junction (1933; Sturgis Associates, W. Stanley Parker). A fire-house for Engine No. 9 was built at 167 Lexington Avenue in 1893 (W.A. Norris), a brick building whose conservative design reflects some Georgian detail; another station was erected at Taylor Square in 1904 (Charles Greco).

Within little more than thirty years after the founding of Newtowne, the community was aware of the need for a jail. In 1655 a dwelling house was bought of Andrew Stevenson to serve as the house of correction. A year later the house, which stood at 12-14 Holyoke Street, was enlarged and after 1660 it was used also as the prison. Sometime between 1660 and 1681, perhaps in 1672, the premises were reconveyed to Stevenson who had served as keeper. This change was undoubtedly related to the construction of a new jail on the north side of Winthrop Street adjacent to the Winthrop Square, where it was in use before 1681, and in 1692 it was repaired in order to accommodate victims of the witchcraft panic. In 1703 an 18-foot square addition was made and in 1715 the older part replaced by a new building with accommodations for the keeper. In this form the jail served until 1816, when it was transferred to the new county buildings in East Cambridge; the old jailhouse was demolished by 1820.

Lying considerably outside the boundaries of this survey, the pumping station located at Fresh Pond should nevertheless be mentioned, because it was closely associated with the growth of Old Cambridge and with the water reservoir on top of Reservoir Hill. The first reservoir, which had a capacity of two million gallons, was 165 feet square, 10 feet deep, and lined with wooden planks. In 1867 that was enlarged to hold five million gallons, and five years later a new pumping station was put up (Fig. 318). The academic character of this handsome brick structure with roundheaded windows and low mansard roof capped by a balustrade seems old-fashioned for 1872, but the Water Board Report, though it fails to name the architect, indicates that the plans were prepared at that time. The reservoir was used until 1897, when a new one was constructed in Payson Park, Belmont, whose higher elevation (177 feet above city base) provided the pressure necessary for delivering water to the highest buildings then existing in Cambridge. The pumping station of 1872, superseded in 1921 by the first unit of the present red brick building situated inside Fresh Pond Park, was demolished in 1953.

318. PUMPING STATION, 250–275 FRESH POND PARKWAY, 1872. DEMOLISHED 1953

319. GARDEN STREET SCHOOL, 1769.
DETAIL OF C. 1781 VIEW. DEMOLISHED

Schools

It is hardly surprising that primary and secondary education has always been a major concern in Cambridge and that there have been many buildings devoted to this purpose. If few have been outstanding architecturally, the changes in design and accommodation throughout the years throw interesting light upon developing concepts of education.

About the town's first school we know little, except that it was started about 1639 in a private house near 13 Holyoke Street, across from the Hasty Pudding Club; in 1647 the first building specifically constructed as a schoolhouse was erected from private funds on the same location. From the building contract we know that it was two stories high, of stone, had a tile roof and stepped gables ("the 2 gable endes of the forsaide scholehouse wals shall be wrought up in battlement fashion"). Despite such seemingly stout construction—which was exceptional for early Cambridge—the town fathers agreed in October 1669 with workmen "to take down ye schoolhouse and set it up again." A third structure (26 by 20 feet and probably wooden) replaced it in 1700, to stand until 1769 when the fourth schoolhouse was erected, this time on a new location on Garden Street west of Appian Way. As elsewhere in Massachusetts, free education was decreed in 1737.

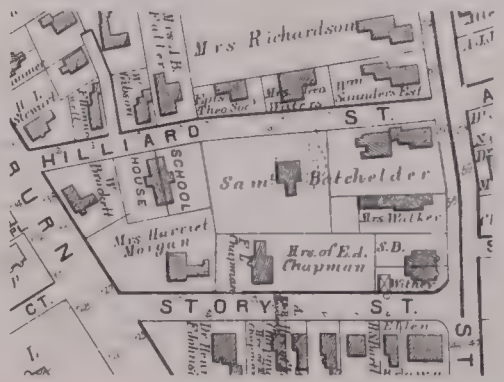
As to the appearance of the Garden Street School, which stood within the Radcliffe Yard, we know that it was more or less square, the hip roof was crowned with a belfry (mentioned in documents but not shown in the illustration of 1781), and that it faced south away from the Common (Fig. 319). A cellar was used for the storage of wood, and the pupils were expected to attend every Saturday long enough to split next week's supply. Admitting only boys, this one room school building was filled with plank benches and shelflike desks and had a small vestibule where coats and the split wood could be stored. A girl's division was later opened at the northeast corner of Winthrop and Eliot Streets in a structure built before 1800 and "improved for female scholars" in 1806. Remodeled in 1828 when girls were first admitted to the same classes, the boys' school (of 1769) was abandoned in 1832 and moved to Boylston Street where it was converted into a dwelling, an event that underlines the basic structural similarity between 18th-century houses and schools. (The idea that a school requires such special treatment that it will be visually different from other buildings is relatively modern.)

The fifth school (1833), called at first the "Latin Grammar School" because it combined beginning and intermediate instruction, followed upon the same Garden Street site, but increasing enrollment soon caused it to be divided, with the intermediate division transferred to a new (sixth) school in Farwell Place. In 1852 the lower school moved to a second building of brick on Farwell Place. The 1833 building on Garden Street was used as a gymnasium until it burned down in 1853. It is interesting to note that the first adult education program in Cambridge was conducted in the fifth schoolhouse when young Charles Eliot Norton organized night classes in 1847.

The sixth schoolhouse, Auburn School, was constructed of wood in 1838 on School Court, now called Farwell Place. Costing all of $4, 171, it had a long and much travelled existence: in 1851 it was moved to about 1783 Massachusetts Avenue and again in 1857 to the site of St. Peter's parochial school on Concord Avenue. There it was called the Dunster public school until purchased by the parish for a parochial school; it was demolished in 1927. House-moving, whether of dwellings or schoolhouses, has long been a Cambridge speciality.

Adjacent to the Auburn School, the second Farwell Place schoolhouse (the seventh in this sequence) was built of brick by M. Norton, who planned and supervised its construction. Called Washington School, the name is commemorated by the Washington Arms apartments that rose on the same site when the school was demolished in 1905. On each of the first two floors there were two schoolrooms, each with an adjacent recitation room; on the third floor, a large (50-foot square) "grammar school" with two recitation rooms. Built in 1851 and heated by furnace, this was one of the city's first masonry school buildings, and its design was considered very advanced.

The thirty years following the Civil War saw considerable population growth in Old Cambridge and the erection of five new public schools. The first three were situated close to Harvard Square: Quincy School at Mason and James Streets (built of brick in 1866), the Holmes School of 1870 on Hilliard Street, and the Lowell School of 1883, the latter two of wood. All three were set on lots not much larger than those required for private houses. Although the two-story Holmes School accommodated 224 pupils, the building was only 35 by 65 feet and (as seen from the 1873 atlas) was divided into separate halves for boys and girls (Fig. 320). It was just large enough for four small classrooms per floor plus



320. DETAIL OF 1873 ATLAS
SHOWING HOLMES SCHOOL,
HILLIARD ST., 1870.
DEMOLISHED

a central corridor. Since the lot was only 92 by 135 feet, the size of the playground was so limited that the recess period probably had to be arranged in separate shifts for girls and boys. From the same atlas it appears that these schools had outdoor privies at the back of the lot.

At a cost in 1883 of $12,943 for land, construction, and furnishing, the Lowell School (on Lowell Street) has not been a bad investment when one considers that it is still in use. (This figure does not include the present playground on Mt. Auburn Street, for the original plot was just large enough to contain the building.) George Fogerty, who designed many Cambridge schools, was the architect.

Also by Fogerty, the Peabody School of 1888 was three stories high but of brick; and it boasted waterclosets in the basement and steam heat. That consideration was finally being given to fire safety is indicated by the controversy between the Commissioner of Public Property and the city Inspector of Buildings, who demanded a better fire exit before the school could be occupied. By 1903 the original six-room structure had been doubled in size and all but filled the school yard. Eventually, however, school administrators came to recognize the need for playgrounds so that by 1916 the other half of the north end of the block had been acquired for that purpose. Even this enlarged space proved inadequate when the present Peabody School, an entirely new two-story structure costing 1.5 million dollars and designed to accommodate modern principles of education, was erected in 1960 from plans by Hugh Stubbins.

The last Old Cambridge location selected for a public grade school lies between Grozier and Larch Roads, where the Russell School was erected in 1897 (A.H. Gould, architect). Two classroom wings and a gymnasium were added in 1923 (Charles R. Greco) when the neighborhood had become solidly filled with two-family houses.

This brief review charts important changes in school policy and design over a century and a half: girls admitted on an equal footing with boys, classes graded each with its own room, the separation of grade and high schools into different buildings, improvements in sanitation and heating, enlargement of school grounds to provide adequate playing space, and finally an expansion of the school from a series of self-contained classrooms in which the entire learning process took place to a complex of specialized areas to which the student is directed for specific learning experiences.

In 1845 Old Cambridge had only two public schools in contrast to eleven in the rest of the city, though in terms of population Ward One (Old Cambridge) is said to have contained slightly more than one-third of the town's 12,490 inhabitants. The proportionally small number of public schools in this section is clearly explained by the large number of private schools. Many of these were small endeavors, held in the teacher's home and carried on for only a few years; no attempt is made here to mention them all, though two of the more famous were the classes Ralph Waldo Emerson held in 1826 somewhere on lower Brattle Street and the girls' school that Professor and Mrs. Louis Agassiz conducted in their home on Quincy Street, 1855-63. There is also record of the tenant building of Thomas Brattle at 106 Winthrop Street leased in 1801 "as a school room" and said to have been the "dame school" attended by James Russell Lowell. Such schools received no special architectural accommodation. From time to time professional schools have also been started in old mansions without alterations. Thus the Cambridge School of Architecture was housed at 53 Church Street for a few years around 1940, the Massachusetts College of Osteopathy occupied 15 Craigie Street in 1916, and since 1936 the Cambridge Junior College has occupied 49 Washington Avenue and has taken excellent care of the old mansion (Fig. 230).

Although held in the schoolmaster's homes, three private schools were large enough to require special schoolroom wings to be attached. When the Fayerweather mansion of the 1760's at 175 Brattle Street was purchased by William Wells in 1827, a large one-story schoolroom was added on the east side of the building, but during the Civil War this wing was removed. Another private school was maintained for many years by Lyman Williston at 15 Berkeley Street (Fig. 177). As originally built in 1863, the large Italianate house included a one-story school wing on the left side; in 1900 the school was detached from the house and moved to the adjoining lot, and in 1912, when classes were discontinued, that school building was enlarged into a house. A third large schoolroom was added to the dwelling at 13 Buckingham Street in 1892, five years after Miss K.V. Smith inaugurated her Fitting School for Girls and Boys. Later (1919) the school wing was detached and moved next door to 11 Buckingham Street and remodeled as a dwelling.

The most important example of a mansion converted to instructional purposes and later enlarged is the Longy School of Music, which in 1937 bought the old Edwin Abbot house of 1889 (Longfellow, Alden and Harlow) on Arsenal Square (Figs. 225-226). Built of granite, the mansion is said to have been the first all-stone dwelling in the city and certainly it is an outstanding example of Richardson Romanesque architecture. Although converted to offices and studios, a laudable and felicitous attempt has been made to retain the interiors. In 1968 a new wing was added to provide a recital hall and library extension in which the school and its architects (Huygens and Tappé) made a determined and highly successful effort to keep the addition compatible with the old in its solid massiveness and choice of materials; at the same time the addition functions well and is a handsome piece of contemporary architecture (Fig. 58). In the words of the citation of an Award of Merit reported by *Progressive Architecture* (January 1966): "An unassuming project, executed with appropriate modesty and designed with sensitive consideration for the existing building and site."

Finally, several private and parochial schools have constructed buildings of their own. The oldest surviving example is St. Paul's parochial school at 29 Mt. Auburn Street (1889; Patrick Ford) (Fig. 321), a rather handsome, vertically composed building, which makes an interesting group with its neighbors, the church on one side and the old Reversible Collar factory on the other. The parochial school related to St. Peter's parish on Concord Avenue was built in 1927 to replace the wooden school moved to this location in 1857. Very similar to grade schools built in all parts of the country in the 1920's, the new building has good exterior brickwork. The adjacent high school was erected in 1959.

For the first eleven years Brown and Nichols School held classes in rented houses until a permanent building was erected in 1894 at 8 Garden Street, a

321. ST. PAUL'S SCHOOL, 29 MT. AUBURN ST., 1889. PATRICK FORD

322. CAMBRIDGE SCHOOL FOR GIRLS, 34 CONCORD AVE., 1896. E. N. BOYDEN

three-story shingle structure located near the site of the town's fourth schoolhouse of 1769. A second building of brick (1897), at 20 Garden Street, was designed in the current Georgian Revival style by Mrs. Nichols, wife of the principal. A three-story structure with six classrooms per floor, it was said to be the "last word" in school architecture, especially adapted to the particular needs of the classes occupying it; yet it provided little in the way of specialized facilities. In 1912 the school purchased land at the foot of Coolidge Hill for playing fields and gradually between 1948 and 1963 was transferred from the Garden Street location as a series of fireproof buildings were erected on Memorial Drive designed by Henry Kennedy and then by Kilham and Hopkins.

More or less contemporary with the founding of Brown and Nichols was the Cambridge School for Girls. Beginning in 1886 in a rented house at 20 Mason Street, the school soon erected its own building at 79 Brattle Street—both these sites now being incorporated in the Radcliffe Yard. A dormitory came next at 21 Chauncy Street (also demolished) and then a new classroom building at 34 Concord Avenue designed in 1896 by E.N. Boyden (Fig. 322). As the school grew, three adjacent residences were acquired, two of them moved to the rear of the property to make room for a playground; unfortunately these buildings were covered with stucco which destroyed their architectural quality. In 1931 the upper school moved to a new campus in Weston, while the lower school remained as an autonomous unit in the old buildings. In 1948 it was taken over by Lesley College as the Lesley School for Children.

Four private schools have carried out extensive building programs in Old Cambridge since World War I. The Brown and Nichols transfer (1948-63) to the new campus has already been mentioned. Of this the most impressive aspect is the broad playing field ringed by academic and athletic buildings; its most interesting architectural achievement is the open-sided ice hockey rink designed in 1966 by Arthur Brooks (Fig. 323). Convertible into four tennis courts for use in summer, the area is roofed by ten trussed girders of 120-foot span.

323. BROWNE AND NICHOLS SCHOOL, TENNIS AND HOCKEY BUILDING, 1966. ARTHUR BROOKS

324. BUCKINGHAM SCHOOL, 10 BUCKINGHAM ST., 1892. ANDREWS, JAQUES, RANTOUL. PERSPECTIVE SKETCH OF 1888

Adjacent Shady Hill School consists of fifteen wooden buildings grouped about a series of small courtyards on 9 acres. Founded earlier in a private home on Shady Hill Square, the school's present campus has always been informal, with the earliest buildings looking almost temporary. Very different, however, is the field house of 1965 (Ashley, Myer, Associates), a hip-roofed structure whose impressive interior is large enough for two tennis courts. This region was originally swamp land and required substantial filling in 1926 to make the playing fields for both Shady Hill and Brown and Nichols Schools.

The Buckingham School was begun in 1889 by Miss Jeannette Markham in a private house on Buckingham Place; three years later a schoolhouse was erected for her at 10 Buckingham Street (Fig. 324). The oldest private, lower school building remaining in Old Cambridge, it is hip-roofed and shingled, designed by Andrews, Jaques, Rantoul. Consisting originally of a single large room in which all four classes met, with teacher's apartment above, it has since been considerably changed. In 1920 came a large brick building of Georgian Revival design at the corner of Parker Street by Andrews, Jones, Biscoe, Whitmore. Dormer windows and gabled pavilions contrast with the high slate roof and are ordered with careful formality. An interesting second-floor assembly hall is arranged under the roof, but the handsomest feature is the two-story gymnasium

325. BUCKINGHAM SCHOOL, LOWER SCHOOL BUILDING, 19 CRAIGIE ST., 1967. ASHLEY, MYER, SMITH

326. FAYERWEATHER STREET SCHOOL, 320 HURON AVE., 1968. WILLIAM BARTON, ASSOCIATES

with a fine trussed ceiling and a large fireplace that occupies the east wing. As recently as 1967 the school added a new kindergarten and first-grade building at 19 Craigie Street, designed by Ashley, Myer, Smith. Charming irregularities in room shapes, floor levels, and ceiling heights create an environment that must be the source of great fun for young pupils (Fig. 325). From the exterior the building's location on its lot, its mass and use of gables admirably respect the residential character of Craigie Street. In 1949 the Buckingham School purchased the old Deane residence at 80 Sparks Street for an upper school. This Mansard mansion of 1858 had already been remodeled in 1932 by the addition of brick veneer and Georgian Revival detail; to this early building a handsome and well-sited brick classroom-library wing of three stories was added in 1968 by Ashley, Myer, Smith.

The most recently founded private school and also the newest school building was designed in 1968 for the Fayerweather Street School at 320 Huron Avenue by William Barton, Associates (Fig. 326). By the time it was planned space for building schools in Cambridge had become very limited, and the site selected must have appeared most unlikely: an abandoned commercial garage situated on the side of a small ravine that used to be a pond. Nevertheless, the densely wooded backyards of some neighboring houses create a forest-like setting and the hillside location alleviates the monotony of the three-story mass of straightforward reinforced concrete construction. As the school yard is limited in size and very low, imaginative use is made of roofs for play space, and the two areas are connected by means of a monumental exterior stairway that also serves as fire escape and constitutes an effective visual feature.

Charitable and Professional Institutions

To introduce this group of buildings brief reference should be made to the town's first almshouse, although that institution was moved long ago to another section of Cambridge. Before 1779 no center existed for care of the poor; town or church arranged for board with private families. In that year a house was purchased by the community at 64 Boylston Street, but this provision must have been unsatisfactory, for seven years later the house and land were sold separately at public auction and the "Poor's House" was built at the corner of Cedar and Harvey Streets, North Cambridge. In the present century, institutions of somewhat related function were located on Mt. Auburn Street in the neighborhood of Elmwood. One is the dignified brick Cambridge Home for the Aged, a Georgian Revival structure erected in 1898 (enlarged 1912) from plans by Stickney and Austin. The pasture leading to the old landing on the river, which used to border the property on the south, formed a more appropriate setting for the institution than does the present extension of Fresh Pond Parkway with its surging traffic. Across Mt. Auburn Street an orphanage, the Avon Home by Andrews, Jaques, Rantoul, was once located on ground now occupied by Longfellow Road, an enclave of two-family houses. The clapboard

MT. AUBURN HOSPITAL (ORIGINALLY CAMBRIDGE HOSPITAL), MT. AUBURN ST., 1884. WILLIAM E. CHAMBERLIN. PHOTO PUBLISHED 1896

phanage with a capacity of forty children was erected in 1891 but closed in following a new policy of placing children in foster homes; the building rned in 1918.

Neighbor to these two institutions was Mt. Auburn Hospital, founded in 1871 er short-lived attempts to provide for the poor had failed: in that day the sick oor were the main charges of hospitals because those who could afford medical reatment and nursing were usually cared for at home. The location selected with a 10-acre tract at the crest of a low rise called Simon's Hill overlooking the ver. Designed by William E. Chamberlin and opened in 1886, the first building consisted of three units: a three-story center pavilion flanked by one-story wings connected by open passages that could be glassed in during the winter (Fig. 27). Each wing was designed as a ward with a capacity of sixteen patients, while a few private rooms were included on the second floor of the center block. Also in the main building were offices, a staff dining-room, and an "accident oom" that doubled as operating room on the first floor; the third level had ooms for nurses and house physicians, while a kitchen occupied the basement and was connected to the ward wings by underground passageways. Much ttention was given to heating and ventilating the wards, a function expressed by he large copper intake louvers at the crests of the hip roofs. The building walls ontrast rough stone and brick masonry while terra cotta moldings enframe penings. The massing and proportions of the buildings, the color and texture of the masonry, and the location of the buildings at the crest of a low hill are felicitous, and the original units are still the handsomest part of the complex. They were soon augmented by a laundry and an isolation ward (for diphtheria and scarlet fever) placed south of the main building (now destroyed). Also monumental in appearance and still standing is the nurses' residence of 1896

328. MT. AUBURN HOSPITAL, WING, 1969. PERRY, DEAN & STEWART

(enlarged in 1917 and 1928) designed by Chamberlin, which repeats the broad eaves of the main building, and the surgical building added in 1897. Wyman House of five stories was built in 1928 (Kendall Taylor Co.) and is augmented by a six-story wing (1959) and one-story laboratory (1963), both by Markus and Mocka. A very extensive building campaign was begun in 1969 after designs by Perry, Dean and Stewart to provide additional beds and laboratories as well as space for private offices for staff physicians; included is a 500-car garage and a new heating plant (Fig. 328). This ten-story complex required the demoliton of several nondescript hospital buildings constructed over the years without much sense of coordination.

Recent institutional buildings erected in Old Cambridge belong to educational or professional rather than to charitable organizations. One example is the Roscoe Pound Institute for the New England Trial Lawyers Guild (1968) at 20 Garden Street, the former location of the old Brown and Nichols school. Occupying an important site between the Common and Arsenal Square, it is appropriate that the design essay a certain monumentality. But the stock millwork and insignificant portico force one to question—given the economic restrictions of the present day—whether it is still possible to execute a successful Georgian design.

RADCLIFFE YARD
HARVARD YARD
Charles River
SOLDIER'S FIELD
ROAD
UNIVERSITY PARKING LOT
WEBSTER
0 100 500 FEET
Copyright 1972 by the President and Fellows of Harvard College

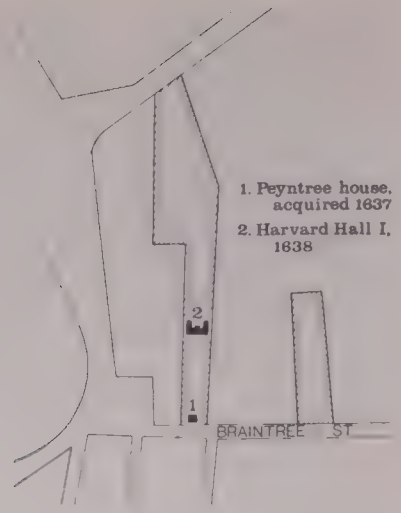
PART SIX:
HARVARD UNIVERSITY ARCHITECTURE

A history of the architecture of Harvard University in itself deserves a book, one the outlines of which can only be indicated here. Yet the need to include such a study, even in abbreviated form, in the present survey of Old Cambridge must be obvious, since from the beginning Harvard has constituted the vital core of the community both culturally and topographically. To attempt a discussion of Old Cambridge and Harvard Square without including the college would be like writing a history of New England without mentioning Boston. Not only is Harvard an integral part of Old Cambridge, its buildings generally have set the architectural standards for later construction in the community.

Early Harvard

Despite later achievements, Harvard's architectural debut was modest. The first building was a simple dwelling house, built by William Peyntree about 1633 and sold to the Overseers of the college in 1637 or 1638 when Peyntree moved to Hartford with the Hooker migration. It served temporarily for general college purposes and later as the first residence for the president. Located on a site in front of Wadsworth House (where brass plates set in the pavement of Massachusetts Avenue mark its front corners), the Peyntree house was demolished in 1644 to make way for the second presidential dwelling, built with the £150 bequest from Lady Ann Radcliffe Moulson . In 1651 an adjacent residence was purchased from Edward Goffe to provide additional living quarters for students. Both Goffe College and the second president's house were probably demolished after they ceased to be used in the 1670's; their site was occupied in 1726 by Wadsworth House (Fig. 103), the fourth presidential residence.

In the meantime the college had erected the first academic building, known variously as Harvard College, Old College, or Harvard Hall I. Planned in 1638, the building was completed by Commencement 1642 at a cost of £1000. Of this amount £400 came from funds appropriated by the colonial council, £375 from John Harvard's bequest, the rest raised in England. Set in the middle of a long, narrow 1 1/8-acre yard, this building faced south toward Braintree Street (Massachusetts Avenue) though it was screened from the street by the Goffe and Peyntree houses. The entrance was in the middle section of the U-shaped building; wings to the rear created a courtyard that faced a pasture in the direction of Kirkland Street, and the building was flanked on the sides by cowyards. This back "Yard" was the origin of Harvard's distinctive way of referring to its "campus."



328A. APPROXIMATE EXTENT OF HAVARD LAND IN 1650

Although no contemporary pictures exist of Harvard Hall I, unusually detailed accounts of its construction enabled Samuel Eliot Morison and Harold Shurtleff to make reconstruction drawings (Fig. 329). The hall, which served for prayers, dining, lectures, and college celebrations, occupied the main section of the ground floor while the library was above; chambers for tutors and students took up the remainder of the building, including the attic. This structure was "of euill contrivall"—or possibly the wood frame was attacked by termites or dry rot—because the first Harvard Hall collapsed in 1677 and 1679.

Two other edifices completed the first campus: the Indian College, a brick structure erected probably in 1655, west of the main building, and beyond that, toward Harvard Square, a brewhouse. Built with funds from the English Society for the Propagation of the Gospel in New England, the Indian College was intended to house twenty Indian scholars, but since no candidates enrolled after 1665, it was used as a dormitory for students and for the college printing press. When this building was demolished in 1698, the bricks were reused in the construction of Old Stoughton Hall.

329. HARVARD HALL I, 1638. REAR (NORTH) ELEVATION. DEMOLISHED 1677–79

330. BURGIS VIEW, 1726. FROM LEFT: HARVARD HALL II, 1671, DEMOLISHED 1764; OLD STOUGHTON HALL, 1699, DEMOLISHED 1781; MASSACHUSETTS HALL, 1718

With the decision that Harvard Hall was not worth repairing, a new structure was planned on a different and larger piece of property (the Betts lot acquired ten years earlier) lying opposite the Burying Ground at the northern border of Harvard Square. Harvard Hall II (or Harvard College, as it was also called) was planned in 1671 and put up between 1672 and 1682, despite hard times and declining enrollment. Constructed of brick and erected on the site of present Harvard Hall, this structure was probably the most important built in New England during the 17th century (Fig. 330). A large (99 by 42 foot) edifice with gambrel roof, it rose two stories to the main cornice, with two more stories in the roof. Its appearance, which we know from 18th-century engravings, was a clumsy version of Jacobean design with faint indications of the Renaissance. The roof consisting of a main ridge intersected by twelve cross gables derives from late Gothic practice and indicates the same fondness for gables evidenced in the second meetinghouse and the original form of the Cooper-Frost-Austin house. Aesthetic preference must have dictated the use of these gables, for certainly they were not functional; the innumerable valleys and the pockets between the gables, aggravated by the curious way the roof appears to have flattened at the cornice, caught rain and snow and expedited wood rot. As early as 1712 there was talk of rebuilding the roof, raising the cornice to the third story and covering it with a flatter roof—as was done later at the Lee-Nichols house (Fig. 100). The use of leaded casements is also Medieval, but their somewhat larger size and regular placement indicates that tastes were changing. More Renaissance-like and reminiscent of English practice a half-century earlier is the use of would-be Classical detail to emphasize critical points. Molded brick pilasters framed the entrances, and the double string course rose clumsily over the middle windows of the facade, perhaps in imitation of a strapwork pattern. Although the roof had to be repaired, its design—except for the addition of the balustrade in 1691—remained as built until the building burned in 1764.

The plan of the building is indicated in the engraving by the two entrances that opened into stair halls. These in turn were connected by a screened passage running along the front of the building. Occupying the space between the entries was the great hall, which like its predecessor served as chapel, dining hall, lecture hall, and festive center at Commencement. Above it and also occupying the entire center of the building was the library, while two tutors' chambers and fourteen chambers for students were located in the remainder of the upper floors. These quarters consisted of suites, each with a common bedroom and two minuscule studies, one for each student. The latter—not much more than a closet with a window—was a feature that went back to medieval English universities and would persist at Harvard until the building of Holworthy Hall in 1811. Later, as other buildings were added to house students, parts of Harvard Hall II were converted into classrooms and an early scientific laboratory.

These two early college buildings, Harvard Halls I and II, were extremely significant undertakings for the time and place in which they were built and were criticized by some as "too gorgeous for a Wilderness." They represent the determined effort of the college to house students and faculty together in an academic community rather than making do by using the meetinghouse for recitations and allowing the students to board in town. The importance the college attached to an academic environment is expressed in a letter from the governing board to a group of university men in England: "it is well known to your selves what advantage to learning accrue's by the multitude of persons cohabiting for Scholasticall communication, whereby to acuate the mind of the other, and other waies to promote the ends of a Colledge Society."

With its facade at right angles to the street, Harvard Hall II formed one side of a quadrangle fronting the Burying Ground. Opposite the hall (and facing it) stood the third residence for the president, used from 1680 until replaced by Massachusetts Hall in 1718. Between these two buildings on the third side of the quadrangle and facing west Old Stoughton Hall was built in 1699, partly constructed with bricks salvaged from the Indian College. A dormitory for thirty students and a tutor, Old Stoughton discarded the Medieval tradition of many gables for a more practical pitch roof with dormer windows and a more regular facade enriched with such Renaissance details as quoins, belt courses, and armorial carving. From the two entries and four chimneystacks one can read the plan: on each floor four chambers, each with two or three studies. This is basically the same scheme that would be used for Massachusetts, Hollis, and new Stoughton many decades later. Old Stoughton, poorly constructed in the first place, was so badly treated by troops quartered there during the Revolution that it was considered not worth repair when the college returned from wartime exile in Concord; it was therefore demolished in 1781.

Eighteenth-Century Harvard

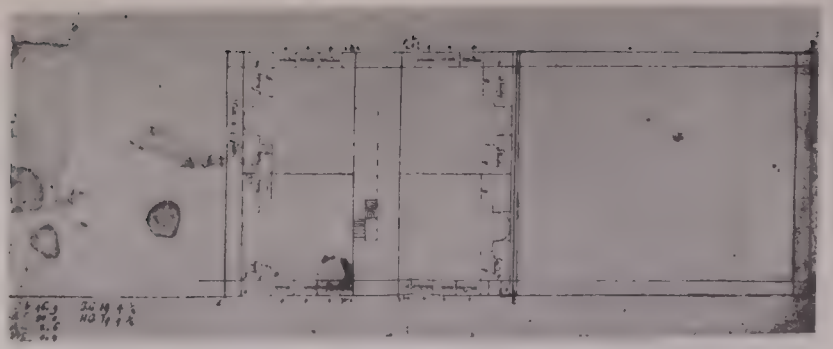
Massachusetts Hall, the fifth major building erected by the college, is the oldest that remains. Begun in 1718 after the provincial legislature had appropriated £3500 for the purpose, it followed the same two-entry plan as Old Stoughton but provided living space for sixty students and one or two tutors. It also contained an early "Apparatus Chamber" for the study of science. Lacking

decorative adjuncts as elaborate as those added to later Georgian buildings, Massachusetts Hall possesses the simple dignity of an Early Georgian building in a provincial town where budget was limited and sponsors were uninterested in external show. Its aesthetic impact depends on its proportions (minor differences in window height and spacing) and on slight accents supplied by brick belt courses and a water table which mark floor levels but do not interrupt the continuity of the fine brick masonry. The twin paneled chimneys of the gable ends and the roof balustrade (which disguises the upper slopes of the gambrel roof) provided later Harvard architects with a model they would copy many times. The only applied decorations were segmental pediments (now removed) over the doors and the clock with its enframement on the west gable added in 1725.

Occupying the site of the third presidential residence, Massachusetts Hall formed a pendant with Harvard Hall II to Old Stoughton so as to create a small but strongly defined quadrangle opening west toward the Common and Harvard Square and turning its back upon the shapeless area that would later become Harvard Yard. Perhaps the expanses of wilderness still present in the early 18th century prompted men to create small oases of order where nature could be controlled. In turning its back on the more extensive college property to the east (though in 1718 this only included about one-third of what is now enclosed as the Yard) and in apparently failing to plan for future requirements, the college administration established a habit that would characterize its actions for many generations. Here, as for the next hundred years, buildings were oriented outward toward the periphery of the college property, toward streets bounding it on the west and later on the south, rather than inward toward the Yard.

330A. HARVARD LAND AND BUILDINGS IN 1799

1. OLD STOUGHTON, 1699
2. MASSACHUSETTS HALL, 1718
3. WADSWORTH HOUSE, 1726
4. HOLDEN CHAPEL, 1742
5. HOLLIS HALL, 1762
6. HARVARD HALL III, 1764
7. COLLEGE HOUSE I (WISWALL'S DEN), ACQUIRED 1772
8. COLLEGE HOUSE II (WEBBER HOUSE), ACQUIRED 1790
9. WIGGLESWORTH ESTATE, ACQUIRED 1794
10. COLLEGE HOUSE III, ACQUIRED 1794



331. MASSACHUSETTS HALL, 1718. PLAN BY PRESIDENT LEVERETT

Built to serve solely as a dormitory, Massachusetts Hall had no communication between the entries, but the manner in which each chamber included two small studies repeats the scheme of Old Stoughton. A floor plan of the building survives in the University Archives, which may have been drawn by President Leverett (Fig. 331); however, the inner partitions have since been repeatedly changed. In 1870–a period when the college was desperately short of classrooms–the building was completely gutted to create four large spaces, each two stories high, to be used for lectures, laboratories, or examination rooms. After a fire in 1924 the interior was rebuilt as a dormitory, but in 1939 the first two floors were again remodeled as administrative offices, both recent changes by the Shepley architectural office.

Following the important but sometimes troubled administration of President Leverett, the provincial legislature celebrated the appointment of a conservative president by building him an official residence. Begun in 1726, Wadsworth House sheltered the next nine presidents of Harvard until the election of Jared Sparks in 1849, who had his own dwelling. The accounts kept during its construction show the importance attached to Wadsworth House: no less than thirty artisans were paid for work done or advice given. Some were Cambridge tradesmen–Prentice, Hicks, Hill, Wyeth–but the framing of the house was entrusted to Hunt and Chandler of Concord; the Coolidges (probably of Watertown) did most of the joinery; and decorative detail and paving stones for the yard were supplied by William Burgis, the Boston artist who drew the earliest picture of the college buildings (Fig. 330).

The architectural importance of Wadsworth House as an early Georgian dwelling and some of its first alterations have already been discussed (Fig. 103). In 1894 Massachusetts Avenue was widened at the expense of the Wadsworth House front lawn, thereby integrating the house with the public space of the street rather than with the Yard. Appropriately its wooden surface is painted a contrasting color and the house is not enclosed within the Yard by the Memorial Fence. The location of the house close to the Class of 1857 Gate gives that entrance a distinctive character. Another change took place in 1871 when the southwest corner of the Yard was rearranged pursuant to the building of Matthews Hall; a two-story brick building (1810) then serving as the college

332. HOLDEN CHAPEL, 1742, 1800, 1850. PHOTO OF C. 1860

steward's office was turned at right angles and attached to the rear of the house. Today the building with its brick wing plays an important role in the ordering of the triangular space filled with beech trees and paved with brick in front of Lehman Hall.

Holden Chapel is a charming little building set between two small dormitory quadrangles. Though repeatedly tinkered with since its construction in 1742, its Georgian character survives. Originally facing west toward the Common, its facade forms an interesting frontispiece framed by paired brick pilasters crowned by a Tuscan entablature and with a large gable filled with florid wood carving (Fig. 332). The elaborate roundheaded entrance enclosed by pilasters and entablature was a "restoration" in 1850 by Gridley Bryant. Originally there was a tall, wide, squareheaded door, which in 1800 was enclosed within a crenellated "Gothic" porch. Side walls contain three rounded windows (lengthened 2 feet in 1814) separated by pilasters whose elegantly profiled brownstone caps and bases are similar to those on the west facade. As in a number of earlier and later Harvard buildings, architectural decoration was continued in only rudimentary form across the rear (east) elevation where there was no entrance. Although pilasters occur, they have no caps or bases, an unfortunate economy, because the principal entrance was eventually placed here when the college turned inward toward the Yard; in 1850 the present east entrance was added, replacing a stair-tower of 1800, and at the same time the entablature and pediment were completed. The old west entrance was sealed in 1880, and a second pedimental relief with the Holden arms was later copied from the old front to fill the east pediment.

Although there is an incontestable dignity about the design, the details reveal a certain makeshift quality. The rather complex entablature of the original facade with triglyphs and metopes is really nothing more than a wooden board attached to the brick wall; on the side elevations the wooden frieze and architrave have been removed, exposing the plain brick band intended to support them. Only the relatively simple pilaster capitals and bases are cut from stone; when more elaborate forms were desired for the friezes, the builder had recourse to wood. Nevertheless, the wooden armorial carving in the pediment and its florid enframement add a sure Baroque note to the composition and furnished later architects at Harvard with a handsome model, as at Dunster House.

Such an architectural design was notably more advanced than anything Harvard had seen before, and it is natural to look for sources outside Cambridge. However, the design is not so complicated or refined as to require English authorship—as some have liked to hypothesize though the edifice does have firm English associations since it was built with a gift from Mrs. Samuel Holden, widow of a former governor of the Bank of England and prominent Dissenter. The same scheme of pilasters between arched openings and coupled at the corners had been used by John Smibert in Boston just two years before for the original Faneuil Hall (a building later enlarged by Bulfinch, who retained the original bay design). Nevertheless, Holden Chapel introduced to Cambridge the more elaborate High Georgian mode which would set the standard for the next half-century.

A period of prosperity and increased enrollment encouraged the legislature in 1762 to appropriate £2500 for a new dormitory; this was promptly erected by Master Builder Thomas Dawes, who was later to be a hero in the Revolution. The name, Hollis Hall, honored a family whose generosity for several generations had aided the college with endowments for a library, two professorships, and twelve scholarships. Despite similarity in plan to the two-entry scheme of Massachusetts Hall, the appearance of Hollis is quite different, presenting a three-part composition in which a center pavilion breaks forward to carry a pediment (Fig. 333). In order to provide the axial emphasis necessary for such a

333. HOLLIS HALL, 1762.
THOMAS DAWES, MASTER BUILDER.
ORIGINAL MAIN FACADE

three-part design, a false entrance was placed on the ground floor. The frames of this center door and the windows in the levels above it were always subdivided into two small windows that illuminated separate studies. (The brick fire wall was added as a safety precaution in 1880 after a fire had burned the roof.)

The projection of the central pavilion is very slight, so slight indeed that the change in plane is almost obscured by a downspout. Obviously so small an enlargement of this middle section had little effect on the interior arrangement of rooms; its purpose, instead, was to provide a theoretical basis for adding the pediment. But the pediment, too, was only decoration, for no living quarters were contained in the attic. A similar kind of structural complication for the purpose of appearance may be observed in the Longfellow House built three years earlier (Fig. 116).

Hollis varies from Massachusetts Hall in just the way one expects a Middle (or High) Georgian design to differ from an earlier one: a hip roof of lower pitch rather than a gambrel, windows of the top story shorter than those of the floors below, designs of entrances elaborated with pilasters and a dentil course rather than simply framed by an architrave as on Massachusetts Hall. Only one original door frame is preserved, that of the false center door of the west elevation, and it now lacks its original segmental pediment. The back entries giving access to the college pump and privies—the only doors now used to enter Hollis—were considerably simpler than those on the main (west) front. The reorientation of early buildings took place as the center of gravity of the college shifted from the small western quadrangle to the present Yard, following the demolition of Old Stoughton in 1781 and the construction of Holworthy and University Halls in 1811 and 1813.

Hollis was placed between Harvard Hall II and Holden Chapel in such a way as to create a second but smaller quadrangle opening toward the Common (Figs. 334, 350). The distance at which Hollis was set back from the street was undoubtedly determined by the comparable position of Old Stoughton, but the interval between Hollis and Harvard Halls was unpleasantly tight, a defect not removed when Harvard Hall III replaced its antecedent in 1764.

334. DU SIMITIÈRE VIEW OF ENTIRE COLLEGE, 1767–68

335. HARVARD HALL, 1764.
GOV. FRANCIS BERNARD, DESIGNER.
THOMAS DAWES, MASTER BUILDER.
ELEVATION

No sooner had Hollis been finished than Harvard Hall was destroyed by fire on January 24, 1764. At that time the General Court was meeting in Harvard Hall because of a smallpox epidemic in Boston. Along with the building, students' belongings and scientific apparatus, the college library of 5000 books was lost, including all but one of the books bequeathed to the college by John Harvard in 1638. Assuming responsibility for the loss, the province erected a new structure designed by Sir Francis Bernard, the Royal Governor, and built by Thomas Dawes. It was the first college building without living quarters but with rooms specifically designed for lectures and laboratories (Fig. 335). The ground floor contained two large areas: a chapel on the west side, on the east a commons above a basement kitchen. The second floor of the west wing housed the new library that was rapidly being assembled from donations by alumni and friends; in the east was the new "Philosophical Chamber," a lecture room and laboratory devoted to science. Two smaller rooms were designated the "Mathematical School" and the "Hebrew School" where those subjects were taught.

Although much altered, the exterior still retains its delicate stone cornice. The college obtained heroic Copley portraits to decorate the dining hall, making it the only American interior of the time where paintings, frames, and architecture were planned to form a single decorative scheme. The library walls were covered by rich fabric, fragments of which survive as does some handsome woodwork. All in all the most sophisticated American college building before Bulfinch, the importance of this edifice has been overlooked by architectural historians. Despite a plan to locate it north of Hollis, the new Harvard Hall was placed on the same site as the old, an unfortunate decision, since the two buildings crowd one another uncomfortably and an unnecessary one when one considers the extent of college land at that time (Fig. 337). It is also interesting to note how the college persisted in facing its buildings toward adjacent streets rather than toward a center of its own. The orientation west became the more pronounced when the college acquired two buildings on the west side of Harvard Square to use as dormitories: Wiswall's Den purchased in 1772 and the Webber House in 1790 (see Part Two).

When the commons and chapel were transferred to University Hall in 1815, the first floor of Harvard Hall was made over into classrooms, a mineralogical cabinet, laboratories, and the whole second floor devoted to the library; but the college was still beset by a shortage of classroom space. In 1842 a two-story

336. HARVARD HALL. PHOTO OF C. 1860 SHOWING CENTER PAVILION OF 1842 BY RICHARD BOND

336A. HARVARD HALL. PHOTO OF 1966 SHOWING SIDE WINGS OF 1870 BY WARE & VAN BRUNT

center pavilion was added to the front of the hall by Richard Bond (Fig. 336). In so doing no attempt was made to duplicate the original frontispiece facade nor to match the size and texture of the old brick; indeed the addition appears to squeeze between the windows of the old facade. But at least the light, graceful design of the old pediment was repeated in the new wing, and the end gables of the old building were not changed.

By 1870 the physics department had outgrown its quarters in University Hall, and it was decided to remodel the first floor of Harvard Hall to provide necessary lecture, laboratory, and storage space. To do this the corners of the T-shaped building were filled in with one-story additions (Fig. 336A). This enlargement was done with a sensitivity most extraordinary for the time. The new brick work—actually antique brick seems to have been used—as well as the brownstone trim matches the original masonry exactly; new fenestration repeats the old roundheaded windows; and the granite blocks from the foundation of the old facade were reused so carefully that it is impossible to detect a break. When pilasters were placed between the windows of the new facade—made desirable by the horizontal proportions of the one-story division—the detailing of their brownstone caps and bases duplicated those of Holden Chapel. How harmonious is this facade with the original design and masonry can be seen by comparing it with the rear (north) elevation which has been little altered.

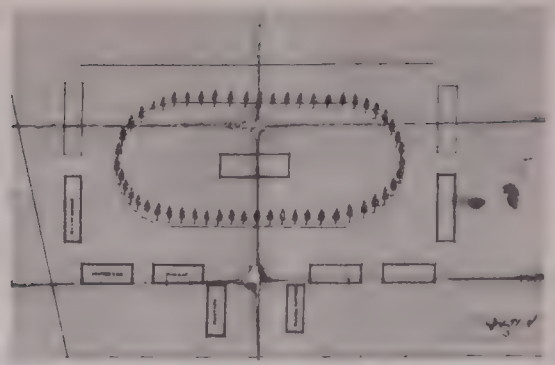
The 1870 reconstruction is certainly one of the most careful pieces of remodeling ever done at Harvard, and fortunately President Eliot's *Annual Report* for 1870 records the name of the architects in charge: Ware and Van Brunt, who were concurrently at work on plans for Memorial and Weld Halls. That firm also was responsible in the same year for the complete reorganization of the interior of Massachusetts Hall as two-story lecture rooms, the exterior being preserved intact. These two commissions, along with the work on Holden Chapel in 1850 by Bryant and the 1857 enlargement of Christ Church, appear to be the earliest instances in Greater Boston of a Victorian architect consciously and sympathetically preserving a Georgian exterior. As such they are significant milestones in the Colonial Revival movement. Following unimportant changes in the early 20th century, Harvard Hall underwent a drastic interior rebuilding in 1968 in order to bring it up to fire-safety requirements, skilfully directed by Ashley, Myer Associates.

Early Nineteenth-Century Harvard

Stoughton Hall designed by Charles Bulfinch, the first Harvard building constructed in the 19th century, was a belated replacement for a dormitory of the same name that had been demolished twenty years before. The predecessor, Old Stoughton, was pulled down in 1781 when it was determined that it had deteriorated beyond repair while the college was in exile in Concord during the Revolution and during which time (October 1775 to June 1776) the old building was used to quarter 2000 American troops. After its demolition public money was too limited to finance a replacement so the commonwealth authorized a lottery to raise the needed funds. Though the lottery was held in 1795-96, construction did not begin before 1804. The new Stoughton almost duplicates Hollis, except that white limestone lintels replace the flat brick arches, belt courses are eliminated, and granite foundations flush with the brick walls are substituted for the High Georgian water table. Like Hollis, Stoughton faced the Common, and its location commenced yet a third small quadrangle, which would not be completed until the construction of Phillips Brooks House in 1898. The false door frame in the center of the facade is comparable to one similarly placed in Hollis, but the wedge-shaped flush lintels over the doorways are signs of the restraint of Federal ornamentation. The present cornice—which would be surprisingly heavy for a Federal building—dates from repairs of 1876 following a fire.

Holworthy Hall, designed by Loammi Baldwin in 1811, was the first dormitory to abandon the medieval tradition of individual closet-sized studies opening off the chamber. Instead Baldwin provided each suite with a sitting room looking

337. PLAN OF LAND ACQUISITION IN HARVARD YARD



338. BULFINCH PLAN OF HARVARD YARD, 1813

339. UNIVERSITY HALL, 1813. CHARLES BULFINCH

south toward the Yard and two bedrooms on the north, an arrangement that permitted better light and cross ventilation. Since there are three stairways, the door on the central axis is now functional. The door openings are framed with handsome rusticated blocks of granite and, since Holworthy has always faced inwards toward the Yard, its original entrances are still in use. Initially, however, the top story was much lower; the cornice was raised by two feet when the dormitory halls in the Yard were refurbished as part of Eliot's campaign of improvement in 1871.

University Hall was begun in 1813 from designs by Charles Bulfinch. It is one of Harvard's most famous buildings and occupied a critical position in the evolution of Harvard Yard. While the concept of the Yard as a self-sufficient space rather than simply a backyard is first mentioned when Stoughton was built (1804) and the scheme put into effect with the location of Holworthy, it was Bulfinch who gave it visual form by the siting of this building. Whereas early Harvard buildings faced outward toward Harvard Square and the Common, University Hall was conceived of as a core about which to organize a new academic precinct. The absence of such a view previously may be explained by the fact that until the purchase of the Appleton, Wigglesworth, and Sewall lots in 1786, 1794, and 1805 the college did not control the middle zone of what is now the Yard, while the eastern third of the Yard was not acquired until the 1833 and 1835 purchases of the parsonage, the Dana-Palmer house, and the Bigelow property (Fig. 337). As indicated in the 1813 plan, Bulfinch envisioned the building as the center of a large ellipse of trees rather resembling a race track (Fig. 338). Though University Hall as designed would not have been large enough to dominate so large a space as that entailed by his proposal, the scheme possessed a certain logic. The new building was planned to provide for public activities requiring a chapel, dining halls, six classrooms, the president's office. Built of Chelmsford granite instead of traditional brick, it was further distinguished from earlier college buildings by more elaborate architectural embellishment (Fig. 339).

The basis of the design is a traditional three-part composition: a central section with larger fenestration, full entablature, and roof balustrade framed at each end by three-story wings of three bays. The central section is further subdivided into a middle part of six bays plus single end bays furnished with pilasters in which continuity is furnished throughout the zone by roundheaded windows. On the other hand, the repetition of fenestration in the ground story and end wings endows the entire building with a quiet unity. The two bays framed by pilasters contain the entrances and gain emphasis by the rustication of their masonry. Although the detailing of the pilasters and capitals is rather robust for Federal work, the building's date is indicated by the lower pitch of the roof, largely hidden behind the balustrade.

As an academic performance the design suffers from the even number of bays of the middle zone and the noticeably wider interval between windows at the exact center of the building (a fundamental defect by correct standards) to provide space for chimney flues from fireplaces in the old chapel and dining halls below. Although the location of four dining halls on the first floor (a hall for each class) required an even number of windows on the exterior, it is surprising that Bulfinch could not have devised a less awkward scheme. It is gratifying, however,

to discover that the clumsy one-story porch seen in old prints extending across the west facade (removed in 1842) was added at the Corporation's insistence after construction had begun. The design included a cupola that was never built.

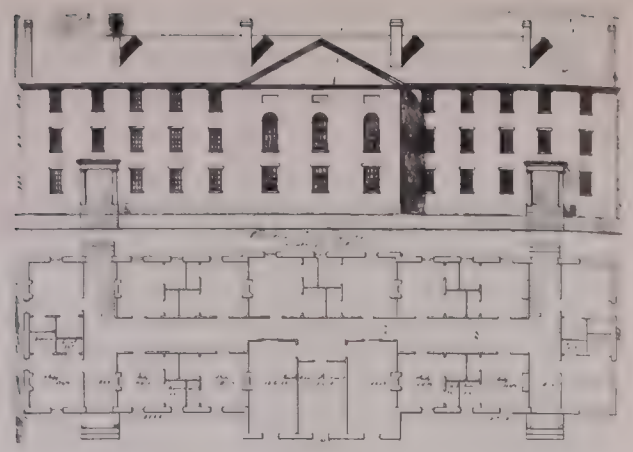
For one of the few times in Harvard history the architect and officials were able to envision future architectural requirements. Even though the eastern front of University Hall opened toward the college privies, this facade was given the same handsome granite surface and pilasters (if not the present granite stairways) as was the western. As a result, the building in later decades has faced Tercentenary Quadrangle and the old Yard with equal dignity, and University Hall provides the necessary link between the university's two most important public spaces.

The building has fortunately sustained few other external modifications, although the interior has been changed repeatedly. After religious services were transferred to Appleton Chapel, the large two-story chapel on the second floor of University Hall was divided horizontally and vertically into classrooms (1867), and dormer windows were installed to illuminate and ventilate the upper rooms. In 1896 these arrangements were removed and the old chapel was restored by Pierre la Rose as the meeting room for the faculty of Arts and Sciences. The president's office, which used to be located on the second floor south, was transferred to Massachusetts Hall in 1939, and the granite steps added to the east front in 1917. The statue of John Harvard was placed in its present position in front of the hall in 1924.

Concurrently with these developments within the Yard, Harvard constructed its first building outside its former precincts, a primitive athletic facility, the Bath (1800), on the Charles River near Ash Street. In Harvard Square land acquisition continued until by 1806 the College controlled more than half the south and west sides from Holyoke Street to the Burying Ground. The buildings here were used for dormitories or professors' residences or were rented as shops. The large area behind the Wiswall and Webber houses (where Harvard Square Theatre and Church Street now are) became the college wood yard for the storage of fuel, and in 1832 Graduates' Hall, a dormitory, was erected south of the Webber house (Fig. 21).

Post-Bulfinch Harvard

The fifty-four years between the completion of University Hall in 1815 and the active building campaign inaugurated by President Eliot in 1869 represents an uncertain interim. Of thirteen buildings erected, no two were alike in architectural style and only two remain that have much architectural significance. Construction was widely scattered, with more than half taking place outside the Yard; during this period also land acquisition began in what eventually developed as the North Yard. The earliest and largest purchase was 66 acres of the old Foxcroft estate bought in 1816. Of this area, however, two-thirds was soon sold, including Shady Hill and sites facing Kirkland Street for the five houses known as Professors' Row (see *Mid Cambridge*, page 28 and Figs. 24, 26-28). The first university buildings placed here were set down unsystematically on the remaining isolated parcels.



340. DIVINITY HALL, 1825. SOLOMON WILLARD AND THOMAS W. SUMNER. ELEVATION BY WILLIAM SPARRELL IN 1834

Divinity Hall (1825) is the first major college building constructed outside of Harvard Yard. This handsome edifice which faces Divinity Avenue is a design of Solomon Willard adapted by Thomas W. Sumner, who took charge of the commission at a very early stage. The design is related to the Bulfinch tradition, although there are signs of the approaching Greek Revival (Fig. 340). Common to both Divinity and University Halls is a scheme using twin entrances separated by a middle portion whose long, roundheaded fenestration contrasts with rectangular and shorter windows elsewhere. So is the variation in floor levels and the way prominent space in the center of both buildings was used as a chapel. The manner in which the pedimented center of Divinity Hall breaks free of the block is quite different. The three large arched windows of the central block illuminate a chapel whose interior was completely refitted by A.W. Longfellow in 1904 with golden oak paneling ill suited to the exterior. As the result of later developments within the North Yard, Divinity has become the pivot around which some of the most adroit site planning at Harvard has been done.

Within the old Yard the placement of five new buildings is important because of the limitations they imposed on later development. In the course of this discussion it will be seen that the present coherent organization of the Yard has been achieved in spite of the decisions then made. If these years constitute a low point in Harvard's architectural fortunes, they correspond to academic and political crises through which the institution was passing, a period in which there were five presidents in twenty-three years (1846-69).

Dane Hall (1832) was built to house the Harvard Law School, founded in 1817. A rectangular brick building, which stood somewhat north of Lehman Hall, it had a two-story Ionic portico facing Harvard Square rather than the new quadrangle recently begun by Bulfinch (Fig. 341). Thus Dane Hall set the stage for the growth of yet another small quadrangle similar to those that had come into being between Massachusetts and Harvard Halls and Holden Chapel. When the time came in 1871 to complete this projected quadrangle, however, the large

341. DANE HALL, 1832.
DEMOLISHED 1918

size of the proposed building (Matthews Hall) and its relation to Grays were such that Dane Hall had to be moved 70 feet south to make room for it. In the meantime a rear wing had been added (1844) to house the growing law library, built by Isaac Melvin, the Cambridge housewright whose work on Dana Hill was discussed in *Mid Cambridge*. The Law School used Dane until the completion in 1883 of Austin Hall; it burned down in 1918. The rapid growth of the Law School after the appointment of a full-time professor–Judge Joseph Story in 1829–is also illustrated by the construction and repeated enlargements of Graduates' Hall (or College House) on the west side of Harvard Square as a dormitory for law students, discussed in Part Two (Figs. 21-22).

No architectural topic better illustrates the growth and changing face of Harvard University than the manner in which it has stored books. For the first two centuries the college library was located in a second-floor room in each of the three successive Harvard Halls. In 1815, when chapel services were transferred from Harvard Hall III to University Hall, the library was allowed to expand to the entire second floor of the former, but within two decades this space became inadequate. When the Massachusetts legislature in 1833 refused funds for library expansion, the university decided in 1838 to use the $100,000 bequest of Governor Christopher Gore for the necessary building. At the time Gore Hall came into use in 1841, it contained 41,000 volumes and was expected to provide for growth for the next seventy-five years. Instead the building was overflowing in less than one-third of that time, and only the establishment of college and departmental libraries made it possible to shelve the yearly flow of acquisitions.

The library, Gore Hall, stood on the site of Widener with its front to Harvard Street (Massachusetts Avenue). Set well back from the street and the first structure erected east of the college quadrangle, this building of Gothic appearance was designed in 1838 by Richard Bond. The structure built of Quincy granite and 140 feet long was cast in the shape of a cross; small octagonal towers enframed a large traceried window at each end of the main block (Fig. 342). Obviously aware of King's College Chapel in Cambridge–a building most likely known through an engraving–the designer was unable to make his Gothic forms convincing. Stiffly symmetrical in massing, the detail was clumsy, as can be seen from the two buttress finials today preserved on either side of the south, ground-level entrance to Widener Library. Yet the design was not as tight and ill scaled as that of Bigelow Chapel at Mt. Auburn Cemetery, the work of a complete amateur (Fig. 93). In contrast to either of these stiff buildings of stone, uninhibited Yankee carpenters putting up Gothick cottages in wood at 85 Brattle Street or on Mifflin Place produced buildings of undeniable charm (Figs. 174, 176). That the library was much admired in its day, however, is indicated by the fact that it was chosen as a prominent design element for the city seal when Cambridge was constituted a city in 1846 and remains as the sole motif of the seal today.

Gore Hall was no more distinguished for the way it functioned than for visual qualities. The nave of this Gothic edifice served as reading room with books grouped in alcoves in narrow side aisles (Fig. 343). This arrangement corresponded with the library's early policy of keeping large collections together as units rather than of shelving books by subject matter, an inconvenient system for readers but one that gratified donors. (By thus encouraging gifts, the college had accumulated 70,000 books by 1857, to be the second largest library in the country, though the yearly purchase budget was only $500.) On the other hand, the designer tried to minimize the danger of fire by using iron roof trusses and floor supports though there was still some wood trim to remove in 1895 when the building was thoroughly fireproofed. The original installation included a steam heating system, which attracted attention at the time it was designed by Professor Treadwell.

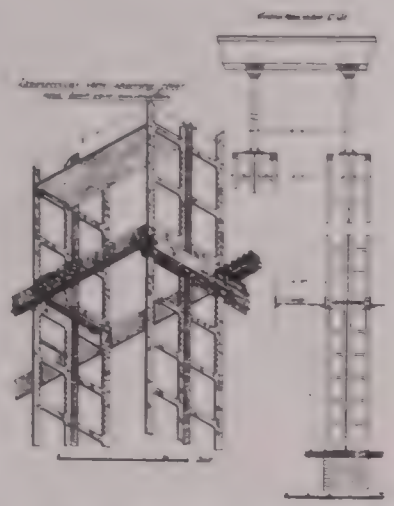
In the course of its life the building underwent various changes and enlargements. About 1850 the octagonal corner towers, which rose to 83 feet, were reduced for structural reasons, but it was lack of space that presented a more urgent and never-ending problem. By 1876 the college, having failed to find a donor for a new building, appropriated money from general funds for a sizable stack wing built on the east side. This addition was important historically because of the experimental design of the stacks in which the weight of each tier of books was transferred to the foundations through steel book stacks rather than through the frame of the building (Fig. 344). The design was worked out in 1874 by Ware and Van Brunt and the college librarian, John Langdon Sibley.

In 1895 the building was again remodelled, this time to convert the old reading room in the "nave" into three tiers of stacks and a reading room on the top level. Electric lights were installed in 1891, a year before they were put into other college buildings; a two-story administrative wing was added in 1906. Since the location of Gore was clearly the proper one for the college library, the old building had to be demolished in 1913 before Widener could be started. This condition involved moving the collection to temporary storage during the two years of building: thirteen depositories were needed to accommodate the half-million books, of which the largest part was stored in Randall Hall, built in 1898 as a students' dining hall on the present site of William James Hall.

A fascinating but almost forgotten building from this period was constructed in 1843 to house the Panorama of Athens, a large painted cityscape of ancient Greece which had been donated to Harvard in 1831. Similar to but evidently smaller than the later Cyclorama in Boston, the painting might be termed an

342. GORE HALL, 1838. RICHARD BOND. ADDITION, 1874. WARE & VAN BRUNT. DEMOLISHED 1913

343. GORE HALL. INTERIOR. NOTMAN PHOTO OF C. 1876



344. GORE HALL ADDITION, 1874, WARE & VAN BRUNT. METAL STACKS. PUBLISHED 1878 IN *AMERICAN ARCHITECT AND BUILDING NEWS*

early visual teaching aid, and it may represent the college's first recognition that the visual arts have a legitimate role in formal education. The circular building that housed the panorama stood in back of College House, was burned in 1845, and was not replaced.

Little or nothing is left of the next two Harvard buildings: the original Harvard Observatory (1843) and Lawrence Hall (1847). Both had a somewhat Italianate character with tall, towerlike masses capped by low pediments of broad projection. The observatory design by Isaiah Rogers followed a familiar Palladian

345. HARVARD OBSERVATORY, 1843. ISAIAH ROGERS. PHOTO OF 1865

five-part scheme with brick central section and end pavilions of wood connected by lower wings (Fig. 345). The geometric formality of the design was enhanced by broad overhanging cornices. Such a compartmented scheme was well suited to a building serving varied activities. Clearly expressed by the dome set on a low attic above the pediment, the central block housed the observatory; the west wing added in 1851 contained classrooms and library, while the residence of astronomy professor, W.C. Bond, occupied the east wing. Located at the crest of Observatory Hill, near the site of the earlier Vassall summer house and some 50 feet above the general level of Cambridge, the building with its three pediments and formal mass presented a striking composition. Unfortunately both wings have been removed to permit enlargements, the west wing in 1960, the east in 1954 (see below). The old observatory, which was the scene of numerous important astronomical discoveries, is so hedged in by later buildings that it is now difficult to find.

Lawrence Hall, the early home of the scientific school endowed by Abbott Lawrence, was the work of Richard Bond, designer of Gore Hall. Built on the north side of Cambridge Street and planned like the observatory as a five-part composition, it was never brought to completion by adding the west wing to balance the professor's residence about the central pavilion (Fig. 346). The considerable height, vertical proportions, and active geometric composition of this building made an instructive contrast with Divinity Hall erected twenty years before, since the basic composition and the use of brownstone and brick were also somewhat similar. The interior of Lawrence Hall was radically remodeled in 1871 when the two-level division of the main building was redivided into three. Here Ware and Van Brunt were freer in changing the exterior: the impressive central door was removed and a low third story was added, but they worked within the original style and reproduced the details of the pediment. In 1970, when scheduled to make way for the Undergraduate Science Center, Lawrence Hall was gutted by fire and demolished.

Three buildings of importance were erected by Harvard just prior to the Civil War: Appleton Chapel (1856), Boylston Hall (1857), and the Museum of Comparative Zoology (1859). So dissimilar in design and so unrelated in

346. LAWRENCE HALL, 1847. RICHARD BOND. PHOTO OF 1867. DEMOLISHED 1970

placement are they that one finds it hard to deduce any plan or policy regarding college building. In all fairness, however, it must be pointed out that the museum was not sponsored directly by Harvard but by a corporation especially created to erect and oversee it. The architecture of this building, which was greatly enlarged over the years, will be discussed later.

Appleton Chapel took the place of the chapel in University Hall. Funds for erecting a "granite, freestone, or marble" chapel were donated by the trustees of the estate of Samuel Appleton, a wealthy Boston industrialist who left a general bequest of $200,000 "for scientific, literary, religious and charitable purposes." Though plans were also prepared by Upjohn, Gilman, and Cabot, the designs of Paul Schulze were used. Of German origin, Schulze practiced in Boston from 1850 and resided in Cambridgeport in 1856 and 1857 before removing to Washington, D.C. where, in partnership with Adolph Cluss, he designed a number of public and government buildings. (Concerning a supposed second partner of the firm named Schoen, mentioned by Bail, absolutely nothing has been discovered.)

It is impossible to say what determined the exact location of the chapel. Placed with its long axis at right angles to University and Gore Halls, it at least defined one side of the large open space that eventually would become the Tercentenary Quadrangle in a way that Gore Hall across from it failed to do (Fig. 350). Although the chapel's major axis was centered on Holden Chapel, the entrance tower was pushed off center in a way that rendered the Holden axis meaningless, and its small side entrance failed to pick up the axis of Gore. Another ambiguity was occasioned by the fact that the chapel entrance and tower faced west toward the old Yard and yet left enough space to locate a large dormitory (Thayer Hall) in front of the chapel. At any rate the location involved no blunders that later planners could not undo, and the wide interval between Gore and Appleton did establish the scale of the Tercentenary Quadrangle now used for Commencement.

Visually Appleton Chapel must have stood apart from other buildings in the Yard by reason of its use of Nova Scotia sandstone, which differed from the granite of University and Gore Halls or from the brick employed elsewhere (Fig.

347. APPLETON CHAPEL, 1856. PAUL SCHULZE. DEMOLISHED 1931

347). The style of the building, derived from the German Rundbogenstil, was an ungainly mixture of Classical and Romanesque, an ambivalence that caused some critics to observe "that it had no style." The staged bell-tower formed an interesting if heavy addition to the sequence of Georgian and Neo-Georgian towers in Cambridge extending from the third meetinghouse of 1706 to Lowell House finished in 1931. In 1872 the acoustics were improved and the seating capacity of the chapel increased to 900 with the addition of a gallery (Peabody and Stearns). At that time the chapel replaced First Parish Church as the locus of Commencement exercises until Sanders Theatre was readied in 1876. Two more interior remodelings (1886 and 1919) took place before the chapel was demolished in 1931 to make way for Memorial Church.

Schulze's second work, Boylston Hall, was more successful in design and, in spite of the fact that its original siting appears to have been somewhat random, the building has served as an anchor for brilliant planning by later designers (Fig. 350). The west wall of Boylston was aligned visually if not metrically with the west facade of University Hall, and the main entrance faced the core of the Yard instead of Massachusetts Avenue as did Gore Hall. By failing to center Boylston axially with University Hall, it is clear that all thought had been abandoned of making University Hall the center of the ring of buildings envisioned by Bulfinch.

Constructed in accordance with Ward Nicholas Boylston's bequest for a stone building, the design of the new hall is closely related to granite mercantile buildings in Boston (Fig. 348). The size of the blocks and the way in which some of the rugged quarry-faced surfaces contrast with the finished textures remind one of buildings by Gridley Bryant, at that time Boston's most prolific architect.

Begun in 1857, Boylston Hall was erected to house a chemistry laboratory (probably the first built for this purpose in America), an anatomical museum, and a collection of mineralogical specimens, but in the course of time it served many other purposes. It is one of the university's few buildings that has been improved by later additions; in 1871 a third-floor laboratory was created by the addition of a mansard story (Peabody and Stearns), but best of all was the thorough rehandling that took place in 1959 under the direction of The

Architects Collaborative. Then the interior was gutted and entirely rearranged; the arched windows, formerly divided by clumsy wooden mullions, were filled with undivided plates of glass. The contrast between the rugged granite and the polished glass is brilliant, and the detailing of other new elements, such as the crisp metal vestibule at the main entrance, enhances the strong feeling conveyed by the granite masonry. The third structure of this group, the Museum of Comparative Zoology (1859), will be discussed later.

Five other buildings were erected before Charles W. Eliot assumed the presidency, two of them designed by Edward C. Cabot, the first and long-time president of the Boston Society of Architects. Both Cabot buildings have been demolished. One was an official residence for the president (1860), the first since Wadsworth House was converted into student quarters in 1849. This fifth residence was an awkward Mansard cottage (one story plus a mansard roof) which stood just south of the residence built by President Lowell (1911). Its design was deliberately modest and informal because it was felt that Cambridge expected the college president to live in such a manner. The other Cabot building was Harvard's first gymnasium, Rogers Hall (1859). An unimpressive building of octagonal shape 74 feet wide, it was mainly used for the gymnastic exercises that came into vogue among students before the Civil War, but it provided no showers or toilets, an indication of how rudimentary was the mechanical equipment of buildings of that period. The gymnasium stood on the Cambridge-Quincy-Broadway triangle adjacent to the athletic field then located in the Memorial Hall "Delta." After the original Hemenway gym was constructed (1878), the old building, renamed Rogers Hall, was converted to house the Engineering School and later the Germanic Museum. In 1933, when Harvard exchanged the triangle for the Little Common, the building was torn down and replaced by the city fire station.

Grays Hall, the first dormitory erected within the Yard in half a century, was built in 1862 from designs by N.J. Bradlee. Following the three-entry scheme of Holworthy, it also consisted of suites made up of a study and two bedrooms, but in appearance it was strikingly different. The higher proportions, paired windows, heavy granite trim, and mansard roof are more acceptable in the southern end of the Yard near Boylston Hall than they would be nearer the early 19th-century structures. Fortunately sufficient space and trees separate the two groups to neutralize the differences. Grays was the first college dormitory equipped with running water.

Two buildings were sponsored by Nathaniel Thayer, a prominent financier. In 1864 he donated an herbarium designed by Ryder and Harris for the Botanic Garden, a utilitarian structure of red brick, enlarged in 1871 and demolished in 1914 (Fig. 141). Thayer also paid for renovation in 1865 of the old Harvard Branch Railway station so that it could be used as a cooperative dining hall providing hard-up students with inexpensive meals (Fig. 349A). The station, which fronted on Holmes Place, had been built in 1850 on the site of the former dwelling (1682) of the College Steward, Caleb Gannett; it was demolished along with the Hastings-Holmes House (Fig. 349B-349C) after the construction of Austin Hall (1883). Known as Thayer Commons, this was the first effort by the college since the closing of the commons in University Hall in 1849 to provide meals for students, and it served as a model for the larger student-managed dining hall opened in Memorial Hall in September 1874.

348. BOYLSTON HALL, 1857. PAUL SCHULZE. PHOTO OF 1867 BEFORE ADDITION OF 1871 MANSARD

349. HOLMES PLACE

A. HARVARD BRANCH RAILROAD STATION, 1850, 1865 AND MORSE HOUSE, C. 1710. BOTH DEMOLISHED

B. HASTINGS–HOLMES HOUSE, 1737. DEMOLISHED 1884

C. AUSTIN HALL AND HASTINGS–HOLMES HOUSE IN 1883

Harvard Under President Eliot

Charles W. Eliot's presidency (1869-1909) was pivotal for Harvard: during this period the educational system changed radically, the student body increased almost fourfold, and Harvard emerged as an institution of national importance. The growth in enrollment, at first undergraduate but later graduate, speaks for itself:

	Undergraduate	Graduate-professional	Faculty
1839-40	244	204	41
1869-70	563	497	44
1886-87	1077	535	90
1908-09	2238	1454	259
1919-20	2534	1948	278
1935-36	3725	2751	512

In the academic realm the elective system replaced the more or less fixed curriculum of earlier decades; classroom recitation, which presupposed the absorption of a fixed body of traditional knowledge, was abandoned in favor of diversified and more independent study; graduate work developed at a serious level in contrast to that of the first two centuries at Harvard, when it had been something of a formality. Along with growing numbers, the last years of Eliot's administration saw an effort to foster an esprit de corps among students by means of athletic participation, common dining and recreational facilities, an impetus that largely came from alumni who sensed the danger of individual isolation as the institution grew in size. Such fundamental reorientation necessitated new buildings, many of them devoted to special activities of a sort that had not existed at Harvard before. In the 230 years preceding 1869, Harvard had owned or built something like twenty-eight reasonably substantial structures (fifteen of them still standing); during the forty years of Eliot's term, over thirty-five new structures or major enlargements were added.

The sequence in which to survey the Eliot buildings presents a problem. Preferable to a purely chronological listing would be an awareness that there were waves of construction in which a certain type of building predominated. For example, the first buildings of the regime ministered to undergraduate needs by way of dormitories, a commons, and the provision of classrooms in remodeled older structures. After 1875 Eliot ceased sponsoring undergraduate dormitories because he felt that private interests were supplying all the new space necessary (the private dormitories on the Gold Coast). In the 1880's his building emphasis shifted to the graduate fields of law, divinity, and science, and after 1900 to athletic facilities and buildings for the college community—the stadium, Phillips Brooks House, the Harvard Union, etc.

Another method of surveying the Eliot buildings would be according to their style of architecture, though such an approach would probably have had little meaning for Mr. Eliot. A man of culture, of sound judgment, and of great administrative ability, Eliot was, as his writings indicate and as Harvard historians have observed, simply non-architectural. To him a handsome building was one that was soundly constructed and planned to house a useful occupation. To paraphrase comments he made in a lecture of 1905, noble public buildings are those that house useful occupations; they provide inspiration through the abstract beauty of good proportions and, perhaps most important, through the beneficent motives that produced them. His one excursion into designing was a double house for his parents and his bride at 59-61 Kirkland Street, a compact, fairly institutional Mansard design of 1858.

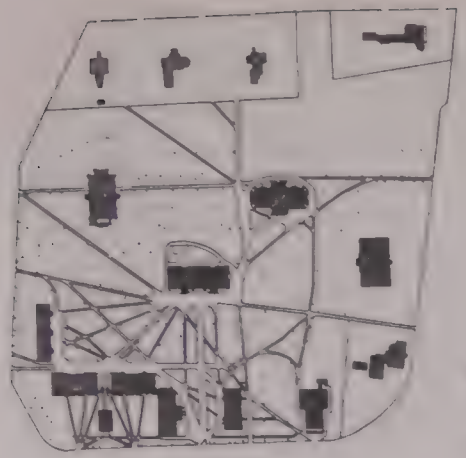
On the other hand, the college benefactors or their architects did have visual interests and did not shrink from expressing them, often with great independence. Professor John Coolidge has identified three categories of architecture in this era, broad groupings which show widely different approaches yet overlapping chronologies. He speaks of "Industrial Harvard, Picturesque Harvard, and Imperial Harvard." Buildings of the first category are large and plain, striving for as much useful space as possible for as little cost, the best example of which is the University Museum, built between 1859 and 1913. Picturesque Harvard—Weld Hall to Weld Boat House (1870-1907) with Sever and Austin Halls in between—is almost domestic in vocabulary, while the importance placed on decoration emphasizes differences in style. Imperial Harvard begins with Hunt Hall (1893) and ends after the Eliot administration with Littauer Center (1938), Widener Library being the most imperial of all; this manner relies on imposing Classical shapes and formal planning.

The drawback in either a strictly chronological or stylistic approach to Eliot architecture is that the examples are not found together in a tight nucleus as were earlier Harvard buildings. In order to consider the relation of the building to its setting and to trace the steps by which the present environment of Harvard has emerged, we shall proceed in a topographical rather than chronological manner. Thus we shall begin with Harvard Yard, move to peripheral areas—especially those toward the river—and finally focus on the North Yard.

Harvard Yard

Much of the Harvard Yard as we now know it took form under President Eliot: the old (dormitory) quadrangle was largely completed, the scale of Tercentenary Quadrangle was established, and the eastern third along Quincy Street was brought into the planning of the larger, unified Yard. The imprint he left on Harvard is appreciated by a comparison of two drawings. One is a plan of buildings, paths, and trees prepared by students under the direction of Mr. Eliot when he was a tutor in sophomore mathematics and before he became president; the other shows Harvard at the end of his administration (Figs. 350-351).

The most pressing building need confronting the school when he took office was that for dormitories, and within a very short time four dormitories were constructed (three of them in the Yard), one (College House) was enlarged, and three others remodeled (Hollis, Holworthy, and Stoughton). Nothing in presi-



350. PLAN OF BUILDINGS, PATHS, AND TREES IN COLLEGE YARD, 1856–57. DRAWN UNDER DIRECTION OF CHARLES W. ELIOT

351. PLAN OF HARVARD UNIVERSITY, 1909

dential reports or Corporation minutes prior to Eliot indicates that previous administrations had laid the groundwork for this sudden burst of construction. Thayer Hall, the first of the group, was built in 1869 through the generosity of Nathaniel Thayer, who had already sponsored the herbarium and Thayer Commons just referred to. A letter from President Eliot in 1883 to Thayer's biographer, George Ellis, suggests what minimal control the university exercised over the design of certain buildings and helps explain the resulting architectural variety: "A few weeks after I became President, Mr. Thayer told me . . . that he thought the College ought to have another dormitory, the rents of which should be applicable to any college use . . . and that he meant to see that it was shortly built . . . Mr. Thayer selected as architect Mr. Edward D. Harris, junior member of the firm of Ryder & Harris, of Boston, and son of Thaddeus W. Harris, a former Librarian of the University. In making his choice Mr. Thayer told me he was influenced by early friendship for the Harris family . . . . The main object which Mr. Thayer had in view was to secure a solid and durable building (almost all the interior partitions are brick) with a considerable rental and accommodations for a large number of students. He deliberately preferred a plain building to

352. THAYER HALL, 1869. RYDER & HARRIS

an ornate but smaller one . . . At the start the Corporation expected to pay part of the cost of the Hall, but before the plans and specifications were complete, it became perfectly understood that Mr. Thayer meant to pay the whole cost. He made all the contracts and paid all the bills himself . . . . I never knew the exact cost of the whole work . . . . ."

Four stories high with a five-story central pavilion, Thayer Hall supplied rooms for 117 students and three proctors (Fig. 352). Despite its elephantine size, it does quite nicely in the Yard; one large building here is more appropriate than two smaller ones that would not have defined the spatial limits of the quadrangle as effectively. More important, the placement of the building facade well behind that of University Hall allowed the older building to maintain its preeminence despite its smaller bulk; but Thayer did so by turning its back upon and rather crowding Appleton Chapel (Fig. 351). Although the design of Thayer makes no attempt to copy Georgian or Federal forms, its academic, five-part composition and use of brick ensure its compatibility with the four earlier dormitories at the north end of the Yard. It is fortunate that Harris did not use granite trim, as Bradlee had done seven years earlier at Grays, for that would have blended less harmoniously with the brick and would have proven distracting next door to University Hall. The emphasis given the center entrance and axial windows of the pavilions by the use of rusticated frames (also carried to windows in the upper floors) is restrained, and the detailing is not incompatible with that of its Georgian neighbors.

The shortage of rooms and Nathaniel Thayer's example inspired two other gifts of dormitories. That they were located together at the south end of the old Yard is fortunate, because their complex massing, irregular silhouettes, and active fenestration would surely have been disturbing close to the earlier halls. Although there were already four buildings in the south zone of the Yard (Boylston, Dane, Gore, and Grays Halls), none of them except Boylston affected the location of the new buildings. Indeed Dane Hall was so much in the way of Matthews that it had to be moved 70 feet to the south. The main entrance of Boylston in fact provided an axis for the side elevation of Weld, a formal act

353. WELD HALL, 1870. WARE & VAN BRUNT

354. MATTHEWS HALL, 1871. PEABODY & STEARNS

which had the beneficial result of placing the main (west) facade of the new dormitory about 30 feet behind the facade of University Hall. As in the similar situation of Thayer, this solution left the focus of attention clearly upon the granite administration building.

The architectural styles of the two dormitories are very different; Weld (1870; Ware and Van Brunt) employs stepped gables and strapwork in a manner somewhat reminiscent of Renaissance Flanders while foreshadowing Queen Anne work; the sharp gables and pointed arches of Matthews (1871; Peabody and Stearns) are close to Ruskin (Figs. 353-354). Yet in both designs the restless massing, broken by gabled pavilions and fractured by bay or oriel windows, is similar. So too is the use of intricate Panel Brick designs, although the color of brick in the two structures is not the same. The most inspired element of Weld consists of the twin towers filled with windows to light the stair-halls below (now unfortunately ceiled off as a fire precaution). Deep entrance vestibules are present only on the main facade, but there are small rear doors. Matthews, in contrast, was provided with identical Gothic porches on east and west fronts because it had to present a formal facade both to the Yard and to Harvard Square.

The campaign of dormitory-building drew attention to the sanitation of Harvard Yard and the possibility of improvement now that the city had provided a water main and sewer system along Massachusetts Avenue. Ever since about 1815 a large college privy (picturesquely referred to as "University Minor") surrounded by evergreens had occupied a position just east of University Hall in Tercentenary Quadrangle, and two pumps of 18th-century date at the west side of the Old Quadrangle supplied water for dormitory use. Grays Hall in 1862 was the first dormitory equipped with cold running water, but it had no inside toilets. "Water-trough privies" (according to the President's Report) were installed in the south basement of University and in the west basement of Holworthy in 1870, but it was 1880 before waterclosets existed in the basements of all buildings and not until 1898 were bathrooms with hot and cold water installed in all residential buildings in the Yard.

Central heating was provided in a few of the non-residential buildings, including Gore, Boylston, and Sever Halls at the time of construction, but this luxury appeared only gradually in dormitories, where fireplaces were relied upon. Heating apparatus was not installed in Memorial Hall initially but only when it was decided to transfer the student's dining hall there in 1874; Thayer and Matthews were centrally heated in 1887, together with University Hall. Before a steam system was substituted in 1898, Harvard and Massachusetts Halls had been for many years "imperfectly heated by hot air furnaces." Grays Hall lacked any form of central heat until 1908.

It is likewise sobering to realize how tardily artificial illumination made its appearance. In 1855 gas lighting was installed in recitation rooms and as an experiment in Holworthy. But it was the summer of 1891 before electricity was introduced. The college had to maintain its own dynamo, which was located in the north basement of University Hall, and lights were installed in Gore, Sever and Memorial Halls, Hemenway gymnasium, and in special reading rooms of several departmental libraries. Installation of electricity in Gore Hall was especially welcome because it meant that the main library, which had prohibited gas lights for fear of fire, could now stay open at night. Hitherto the reading room and stacks had sometimes been forced to close as early as four o'clock.

The removal of the privies from Tercentenary Quadrangle was the signal for a general improvement there and led to thoughts about its future development. In 1871 the president reported the expenditure of $4000 for landscaping and outlined a plan for the future growth of the Yard. "The rectangle between Holworthy and Grays Halls is considered to be now completed; unless at some future date, it should be thought best to put a building with a wide archway between the eastern ends of Harvard and Massachusetts Halls in the position of the Old Stoughton Hall. For the rest of the Yard the Corporation are proceeding upon the plan of keeping the space between the Library, the Chapel, and University Hall forever open. A building may be placed on the eastern side of the avenue which leads to the southern door of the Library to match Boylston Hall on the western side, and a continuous, or nearly continuous structure may

355. CHARLES W. ELIOT'S SCHEME FOR HARVARD COLLEGE YARD, 1870

stretch along Quincy Street, from Harvard Street to Broadway. The building along Quincy Street should be imposing and a unit in design . . . . University Hall, the Chapel, Boylston Hall, and the Library being of stone, it is desirable that all future buildings to the eastward of them should also be of stone." The plan drawn to illustrate this description is found in the University Archives (Fig. 355).

Despite this resolve, the proposal to build in stone had been forgotten by 1878 when a bequest from Mrs. Anne Sever made it possible to construct an urgently needed classroom building, a need that had been met only temporarily by the remodeling of the three venerable buildings previously referred to. The Corporation appointed a building committee to employ an architect and oversee the undertaking. H.H. Richardson was appointed architect in October 1878, construction began the following spring, and the building was ready for use in September 1880.

The new structure provided 24 classrooms varying in capacity from 350 to 40 seats, plus 12 preparatory rooms, which could be used by the faculty or for small classes. The latter were placed between the classrooms to form a suite of three rooms which could be assigned to a specific academic department. Space allocated to the fine arts in the north half of the third floor included a 300-seat lecture room and two exhibition galleries. An examination room 70 by 52 feet was placed in the attic, but this seems to have been an afterthought, because the long shed dormer window needed to light it does not appear in early studies for the building; in later years this room was used for a fine arts studio.

Sever Hall was the first important university building erected in the eastern third of the Yard. That area, acquired by Harvard in 1833 and 1835, had been the site of five large residences facing Quincy Street (Fig. 337). One was the Dana-Palmer house (1822), another the fifth president's house of 1860; the other three were put up by the college in the 1840's. That built for Professor Pierce at

356. PROJECT FOR HARVARD YARD WITH SEVER HALL, 1878. H. H. RICHARDSON

31 Quincy Street (1844; see *Mid Cambridge*, Fig. 112) had to be moved to make way for Sever Hall. The new classroom building was located too close to Quincy Street to have permitted without crowding the placement of the hypothetical long building mentioned in the president's plan of 1870. That the plan had not been entirely forgotten, however, is proved by a watercolor preserved in Fogg Museum (Fig. 356). The sketch, a bird's-eye view of the Yard drawn in Richardson's office, may have been made to entice other donors. Sever is shown in some detail in the foreground; the Yard's other buildings appear more sketchily. Instead of the long, continuous structure on Quincy Street, three detached buildings are shown with a wide gap east of Sever, this being the first suggestion of the present Sever Quadrangle. The sketch must have been drawn during the winter of 1878-79, because it shows the east facade of Sever in a slightly different form from what was actually built.

The east-west location of Sever astride the property line separating the house lots just mentioned from the Yard seems to have been influenced by the location of Gore Hall, now enlarged on the east by the 1876 addition of its book stack wing (Fig. 351). But Sever was not aligned with any single building. To have placed it exactly opposite University Hall would have crowded Gore and emphasized the sharp differences in architectural style and material between University and Sever, for symmetry invites comparisons. When we examine the spatial context of Sever within the Yard, we realize that its exact location must have been determined empirically by staking out several positions and trying to envisage how each would look.

In Sever Hall Richardson combined lavish ornamentation with quiet monumentality in a way that no other 19th-century American could do (Fig. 357). The contained outline of the building and its solid mass clearly define the shape of the open spaces upon which it fronts, and the building takes its place among the older structures of the Yard with a quiet dignity which enhances the whole area.

357. SEVER HALL, 1878.
H. H. RICHARDSON. EAST FACADE

Although not attempting to go it alone, Richardson does not renounce individualism nor refrain from lavish ornamentation. The key to this happy solution is in the use of brick throughout. No matter how intricate the ornamentation in any part, it reads first and foremost as integral with the fabric. Seen from a distance these brick details read as masonry; only when one gets close enough to examine them do they emerge as extraordinarily rich and inventive elements of decoration.

The color of this brick is not that of either Thayer or the 18th-century buildings. The reason for this was undoubtedly a practical one: Richardson planned to use a great deal of cut brick and molded brick ornamentation (newspaper accounts say there are sixty different shapes) and the brickyard that produced the best work of this kind was operated by J.L. Sands and Son of northwest Cambridge (Fig. 384). The fact was that clay from the Sands' pits burned a different color from that used earlier, and in later years it was known to the trade as "Harvard Brick." The choice of brick for Sever appears to have determined that material for all subsequent buildings in the eastern third of the Yard.

Fenestration is the other unifying factor in the design. A window module runs throughout, used singly or in groups and carried into the tower-like bay windows. Multiplication of the module in long banks provides maximum light for the interior without diminishing the building's apparent strength by many separate holes. The low arches of the two entrances are the designer's only concessions to his characteristic Romanesque manner. To have used such arches elsewhere would have complicated the design and cut down window area. The towered bay windows express the different interior functions of classroom and professors' preparation rooms.

In Richardson's total production the building that most closely resembles Sever is the New London, Connecticut, railroad station, a building currently threatened by demolition, but a close affinity also exists between Sever and the rectory of Trinity Church in Boston, designed in 1879. It is appropriate that Sever has been listed in the National Register of Historic Places and declared eligible to become a National Historic Landmark; one agrees with the late Dean Joseph Hudnut of the Graduate School of Design that "Sever Hall is the most American of our buildings—and our most important one."

Twenty years would elapse before the northeast corner of the Yard was filled by Robinson Hall (1900; McKim, Mead and White) and Emerson Hall (1904; Guy Lowell). To accommodate them two more houses had to be moved from 25 and 37 Quincy Street: the Walker house, 1844 (see *Mid Cambridge*, Fig. 80), and the Felton house, 1848. In placing the new buildings as pendants on the eastern axis of Sever Hall the solution suggested in the Richardson drawing was retained but not the picturesque manner of massing and detailing, since by this time the taste for an "imperial" image had grown too strong. The new buildings are of brick and their calm rectangular shapes complement one another admirably. This new quadrangle was given even sharper definition with the construction of the Memorial Fence and the location in 1925 of Fogg Museum on the opposite side of Quincy Street, still on axis with Sever (Fig. 378).

The last space in the northern corner of the Yard was occupied by Phillips Brooks House in 1898 (A.W. Longfellow). Expertly sited, the building filled a heretofore empty and awkward corner and created a new quadrangle to balance one south of Holden Chapel. Facing both its small quadrangle and the Cambridge Street underpass, Brooks House has two handsome entrances, consequently there is no feeling of a rear elevation. Equally sensitive are the massing, choice of material, and detailing which complement 18th- and 19th-century neighbors, an object-lesson not lost on Charles A. Coolidge of the Shepley office when he designed Mower Hall to complete the small quadrangle in 1924.

Less skilfully sited, Hunt Hall—designed in 1893 as the original Fogg Museum by William Morris Hunt—has never been considered a success (Fig. 358). It was criticized by the first faculty to use it as unfunctional and by the visiting committee of 1894, who called for consultation with faculty in the planning of future buildings; in later years the structure proved no more accommodating to the Graduate School of Design. The earliest "Imperial Harvard" building, its Classical forms of white limestone and studied elegance are oblivious of all else in Harvard Yard. Turning its back on the Yard the building is placed so close to Cambridge Street that it defies enclosure within the Memorial Fence. Although one must admit that it would have been difficult to relate this building to Appleton chapel or Thayer Hall—both of which turn an indifferent back to it—the building makes poor use of valuable space and is scheduled for demolition in 1973 to make way for a dormitory.

The Memorial Fence connecting several existing gateways and enclosing the Yard, an unusually fine combination of wrought-iron sections separated by brick and limestone piers, was begun in 1901 from designs by McKim, Mead and White. It replaced a succession of earlier fences, its immediate predecessor consisting of granite posts carrying squared wooden rails set diagonally (a design still

358. HUNT HALL, 1893. RICHARD M. HUNT. DEMOLISHED 1973

retained for the fence enclosing Cambridge Common). The cost of the different sections of the new fence was defrayed by various classes, clubs, or alumni whose insignias are worked into the iron ornamentation. The fence is punctuated by nine major gates and several minor ones, likewise donated by classes and individuals. The first of these, and the most elaborate, is the Johnston Gate of 1890 (McKim, Mead and White) at the historic main entrance to the Yard.

Areas Outside the Yard

Outside Harvard Yard the properties fronting Harvard Square acquired earlier by the College took on increased importance during the Eliot administration. Graduates Hall of 1832-59 (later called College House) was enlarged to become one of Harvard's most important properties. This building, which had stores on the ground floor, was the first reasonably large commercial one on Harvard Square (Figs. 21-22). A second major college building here was Holyoke House, begun in 1869 as part of Eliot's crash program for dormitories. Larger and more impressive than College House, the importance of Holyoke House to the commercial development of the square was discussed in Part Two. The college seems to have been so pleased with Mr. Harris's design for Thayer Hall that in June, 1869, even before that building was completed, the Corporation voted to retain the architect to draw plans for a second dormitory, to be financed with college funds. (As Mr. Thayer was still a member of the Corporation, he probably had a hand in the decision.) Like College House, Holyoke House was planned with an eye to income: stores occupied the front half of the ground floor and a public restaurant occupied the rear. Suites on floors above consisted of a study, two bedrooms, and bath. The yearly report for 1870 added that "these rooms will be let by the year to professional students, undergraduates, or other gentlemen."

The use of a mansard roof on Holyoke House was as much prompted by economy as by fashion because it was cheaper to construct a wood roof covered with slate than to carry up masonry for another story (Fig. 29). Nevertheless, the building had a certain public role to play because it faced Massachusetts Avenue and it was therefore more elaborate than Thayer. But together with three other dormitories put up in the same years, Holyoke House illustrates the architectural variety which marked the Eliot administration.

Holyoke House was built on a lot owned by Harvard since the 17th century, but except for this the Eliot administration made no effort to build on or acquire land in the residential-business district between the Yard and the river. Instead, continuing a trend established in the 1850's, it sold property in this vicinity: the sites for Little's Block and the horsecar barns on Dunster Street as well as the remaining land behind Holyoke House (sold in 1898 to realize funds for the purchase of a lot on Kirkland Street for Randall Hall). The college still owned a wharf and a modest wooden boathouse which was following in 1906 by a more elaborate one (Weld).

Such lack of interest by the college did not mean that no building was being done here, because this was the period that saw the construction of many private dormitories (see Part Two). Plans to expand the university to the south came later, however, and were left to a group of far-sighted alumni who acquired parcels as they came on the market with the express purpose of consolidating and holding them until Harvard needed the property (see below).

Similarly the south bank of the Charles River, a marshy region—and actually outside Cambridge—came into Harvard ownership principally by gift: the 70-acre Longfellow gift in 1870, another gift of 31 acres in 1890 by Major Henry Lee Higginson, and a purchase in the same year of 9 acres to connect the two. The development of this area as athletic grounds, first by the construction of Newell Boat House in 1900 (Peabody and Stearns) and of the stadium in 1903 (G.B. de Gersdorff and Charles McKim), undoubtedly helped to focus the attention of alumni on the possibilities of a south campus. The planning of the tidal dam on the river and the projection of the Charles River Parkway (later Memorial Drive) in the 1890's by Charles Eliot, the President's son, also served to spur interest in this district, but further building here would not come until after Eliot's retirement.

Beyond Quincy Street, its eastern boundary, Harvard also gained a bridgehead in the form of the Harvard Union, donated in 1900 by the same Major Higginson. This extremely handsome building, the work of McKim, Mead and White, was designed to be as lavish as any Gold Coast club or dormitory. The purpose of the donor, to provide an attractive gathering place for students not wealthy enough to afford the luxuries of a club, was an attempt to build an esprit de corps among the rank and file and to bridge the gulfs between them. The Union was augmented in 1911 by the Varsity Club (T.M. Shaw) of comparably good design. Warren House (1833) was moved back to its present location to make room for the union, while the Dana-Palmer house (1823), now used as the university's official guest house, was moved to its present site in 1946 when Lamont library was built.

359. NORTH YARD, HARVARD UNIVERSITY REAL–ESTATE HOLDINGS PRIOR TO 1869 AND LATER ACQUISITIONS

The North Yard

In contrast to his apparent indifference to the area south of Massachusetts Avenue, President Eliot was actively engaged in expanding Harvard's holdings north of Cambridge Street. Considerable acreage was acquired, and an impressive number of new buildings or sizable additions to old ones were made. Before discussing these, it will be helpful to summarize the acquisitions of land and to discuss the administration's planning policy.

The area north of Broadway and Cambridge Street, one day to be referred to as the North Yard, was, when Mr. Eliot assumed control, far from the topographical unit it is today. The terrain was uneven, some of it swampy, and it was traversed by derelict railroad tracks. University ownership was spotty, confined to unsold fragments of the Foxcroft estate facing Divinity Avenue, Oxford and Kirkland Streets, a portion of the Jarvis estate, and three small parcels south of that with frontage on Holmes Place and Massachusetts Avenue (Fig. 359).

By 1869 there were four substantial college structures north of the Yard: Divinity Hall (1825), Lawrence Scientific School (1847), and the gymnasium (1859), all discussed earlier, and the University Museum (1859). Two less significant structures were Thayer Commons, already mentioned, and the first Engineering School, a commonplace frame building constructed west of Lawrence Hall in 1849, moved to the museum grounds in 1860, and sixteen years later to Jarvis Street where it was rechristened as Society Hall; there it stood until 1950. These buildings had been erected on isolated sites with absolutely no thought of their belonging to an orderly whole. Indeed Divinity Hall had been deliberately set apart from the college on land provided by the Society for Promoting Theological Education, while the University (Peabody) Museum was organized, built, and at first administered as an independent cultural institution which was not turned over to Harvard until 1876.

It was to this area that President Eliot turned for the next phase of his building campaign once the pressing needs for dormitories and classrooms in the Yard had been taken care of. The first step was the acquisition of the intervening

parcels between Massachusetts Avenue and Oxford Street, a move made practicable by the tax decision of 1869 discussed below. Thus Jarvis and Holmes Fields were acquired in 1870 and 1871 and the frontage on Holmes Place was increased. In the years after 1886, Eliot focused on that portion of the Foxcroft estate which had been sold, noting with satisfaction that this could now be "bought back at prices less than those for which it was sold by the college." This process accelerated toward the turn of the century but was not complete until 1955.

Only after the college had begun to consolidate ownership was it feasible to think of placing new buildings in accordance with some plan. The president must have been aware of the need for a plan, if for no other reason than close associations with his son, Charles Eliot, the landscape architect, and his brother-in-law, Robert S. Peabody, a prominent Boston architect. When we examine what was done, however, we may conclude that while the president may have had a building policy, it was hardly a plan. He continued the customs, begun with Divinity and Lawrence Halls, of locating graduate and non-academic departments outside Harvard Yard. (The exception to this was the siting of Austin Hall, since law was at that time still included in the undergraduate curriculum.) Mr. Eliot might also have had in mind some kind of quadrangle about which new buildings would be placed in a way not dissimilar from that of the old Yard, but if he did, it was so vague and so consistently ignored that the North Yard grew up almost at random (Fig. 366).

Harvard's acquisition of Jarvis Field (now the site of the Graduate Center) came about in connection with the building of Memorial Hall. The alumni committee responsible for erecting the Civil War memorial picked the Delta as the location for their proposed building. But because this space was used as playing fields, Harvard only agreed to release it in exchange for Jarvis Field, which the alumni purchased and gave to the university.

The conception and construction of Memorial Hall is one of the outstanding chapters in Harvard history. By far the most elaborate building the college had thus attempted, it forms a milestone in American architectural history and represents the first large-scale cooperative fund-raising program undertaken by Harvard alumni. By the time it was completed in 1878, $368,980.90 had been contributed, a figure representing approximately one-twelfth the total endowment of the college at that time (almost $4.5 million). Although there was little disagreement about the appropriateness of honoring in a signal manner Harvard's Civil War dead, the extravagant cost of the building occasioned bitter comment, the more so because of the financial straits that developed halfway through the fund-raising campaign. That the building was completed without drastically compromising the original scheme, and in the face of great obstacles, is indicative of the importance that leading alumni attached to the undertaking.

The idea of a war memorial was first broached in 1863, and by 1865 the Committee of Fifty had been formed to realize the project and an architectural competition held for a design for the building. From an unknown number of submissions, that by Ware and Van Brunt was chosen. The plans were ready by 1866, though they were modified in important details in 1868 and 1871. Work began in the fall of 1870; the banqueting hall and the memorial hall beneath the

360. FIRST DESIGN OF MEMORIAL HALL, 1865. WARE & VAN BRUNT

tower were finished by Commencement 1874; Sanders Theatre was substantially complete by May 1875 but was not used for Commencement exercises until a year later. The tower was finished in 1877, and in 1878, when the structure was finally adjudged complete, it was formally turned over to the university by the committee that had seen to its construction. The great clock in the tower was added in 1897, a gift from the Class of 1872. During World War II the iron cresting on the tower was removed and the building suffered neglect; it was being restored in September, 1956 when a workman's blow-torch accidentally ignited the wooden substructure of the tower roof, which was burned off. The roof along with the iron cresting—absolutely necessary to the appearance of the building—were not replaced, and since then repairs to the building have been minimal.

Memorial Hall is really three buildings: a memorial hall, a banqueting hall, and Sanders Theatre. The design expresses these separate functions clearly, yet integrates them. It is perhaps unfortunate that the building looks so much like a cathedral, for this has led some to assume that the architects started with a preconceived picture into which the different functions were fitted. This seems not to have been the case, however, for the first studies placed the memorial at the west end rather than under the central tower as was finally settled upon (Fig. 360). Though this first sketch gave less the appearance of a church, it embodied a less good plan.

In its final form the memorial portion is appropriately somber: sepulchral light filters through grimy stained-glass windows, and walls are sheathed with grey marble cut with memorial inscriptions; the floor is paved with squares of marble and the wood vaulting lacks luster. The "correctness" of these vaults or their construction in wood (both topics of heated debate at one time) probably interest modern critics less than the imaginative way by which the volumes of the hall fuse with those of the large stairwells providing access to the balcony of the adjacent theatre. From a modern point of view it is felicitious that a commemorative space such as this finds so vital and lively a function as lobby for both a concert hall and a dining hall.

In addition to the memorial area, the alumni's objective was to provide an adequate space where the numerous graduates attending Commencement could gather for the traditional banquet. This was an honored college custom, but one that was becoming difficult to continue because of increasing numbers. As this annual affair was arranged by caterers, extensive kitchens were not necessary. Use of the hall as a student commons had not been part of the original scheme, but with the success of Thayer Commons, which was overflowing limited quarters in the remodeled railroad station on Holmes Place (Fig. 349A), it was decided in October, 1874, to provide for a similar student-directed dining hall in the recently completed Alumni Hall. This entailed installing a basement kitchen and heating system, and adding a serving pantry on the north side of the hall and furniture. These improvements (costing $40,000) were made with a loan from the university, but the student organization directing the dining operations was expected to amortize the debt with interest.

The inspiration for the open-trussed ceiling of Alumni Hall was, of course, the dining halls of Cambridge and Oxford. The 59-foot width of Memorial Hall is not much less than the 68 feet of Westminster Hall, the largest wood-trussed interior surviving from the Middle Ages. To further the resemblance to British prototypes, the university adorned it with its collection of portraits and busts (Fig. 361). A dado of walnut paneling along with stained-glass windows and painted designs on the ceiling enhanced the interior. If much of this embellishment is so inhibited by tradition as to be rather dull, there are imaginative details, like the balcony at the east end of the hall with a sequence of stairways leading to the upper levels of the central tower. Exposure of the brick masonry of the tower also adds welcome relief to the plaster surfaces of the interior ornamented with stenciled designs.

Alumni Hall is the least interesting part of the building, although its best exterior feature is the open entrance vestibule remaining from the memorial first planned for the west facade. Now used as a memorial to President Walker (1853-60), the arcaded porch has a good scale, and its design diminishes the ecclesiastical appearance of the building. The handsome wrought-iron gates of the Walker porch were acquired with a special $500 bequest made in 1876.

The greatest achievement of Memorial Hall is Sanders Theatre. Its woodwork is lustrous, carving and colors sympathetic, acoustics and visibility excellent; the spatial configuration is so good that the auditorium, although seating 1200 spectators, nevertheless conveys a feeling of intimacy. The theatre was built with a bequest of $50,000 received in 1863 from Charles Sanders, a citizen of Cambridge, for "the erection of a large and substantial hall of simple architecture." Although he did not specify the Sheldonian Theatre in Oxford, that building seems early to have been in the minds of university officials and architects. The five-sided plan of Sanders transforms Wren's Baroque theatre into Gothic Revival terms without sacrifice of function. The west balcony over the stage—designed to accommodate overflow crowds—is an acoustical aid whose coved surface projects sound toward the audience, while the many different surfaces of the roof, walls, and trusses break up the pattern of reflected sound to make the acoustics excellent. Roof trusses of wood conceal iron tension rods, a subterfuge for which the architects were much criticized by their contemporaries. Concerts as well as Commencement exercises were first held here in 1876.

361. MEMORIAL HALL, 1868–71. WARE & VAN BRUNT. INTERIOR VIEW OF ALUMNI HALL LOOKING EAST

362. MEMORIAL HALL TOWER. PHOTO BEFORE 1956 FIRE

The pious determination of Harvard alumni to memorialize their fallen classmates is best expressed by the soaring 195-foot tower (Fig. 362). The highest construction for miles around when built, it expressed the almost religious sincerity with which these men regarded the justness of the war and the sanctity of the sacrifices made. For later generations the building was the focus of Harvard life, its bell calling and dismissing classes, its dining hall accommodating over half the student body. Even townspeople were beholden, if they lived within a quarter mile radius of the tower for there was no need to own a watch; one could see the face of the clock or hear the tolling of the quarter hour. It is unfortunate that a building of such importance to Harvard, let alone its value to American architecture, be neglected. The tower in its present state of mutilation is an eyesore and will be costly to repair, but one trusts that the new administration will find means to replace the roof, clock, and iron cresting.

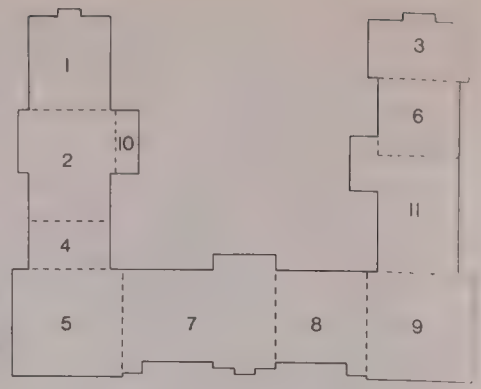
The successful design of the tower was arrived at after numerous schemes had been discussed by the committee and after the architects had gone through no less than four recorded studies. In the first design the tower was as wide as the crossing and consequently lacked verticality to relieve the mass of the whole. Consistent with the placing of the memorial in the tower, studies done after 1868 gave prominence to the tower itself and to the entrance porches at its base. The present form was resolved in 1871. By raising and squaring the top, introducing gables at the transition above the porches, and by increasing the pitch of the mansard roof and capping it with iron cresting, the design was unified in a great pyramidal shape. Before the roof burned off, the design was best seen from an angle in which the roof slopes of the projecting arms reflected the outline of the tower. A much less interesting aspect was from the side from which the long nave seemed somewhat unrelated to the rest of the building: now, however, with the completion of the new underpass and the attendant blocking of a direct approach to the building from the south, such a view is seldom obtained.

Serious financial limitations caused the alumni sponsors to search for ways to trim the cost of Memorial Hall without destroying the power of its statement. One economy was the substitution of brick for stone. As it has turned out, this was a blessing, because brick not only harmonizes better with Harvard buildings than would have the more expensive brown sandstone but weathers incomparably better, a circumstance the Victorians could not foresee. Nevertheless, the enforced substitution was a bitter disappointment to some of the sponsors who followed Ruskin in regarding richness of material as an indication of the giver's dedication, a necessary component of great architecture, and a measure of beauty.

Still one of the largest buildings at Harvard, the University Museum is a self-contained giant sprawling in the central North Yard. Seemingly plunked down at random, as we observe it today, the building's only relation to Divinity Hall—the other college structure then standing in the vicinity—was that access to both was from Divinity Avenue. In fairness, however, one must recall that the locations of both buildings had been determined by non-university corporations. It was not until the 1930's that the two buildings were brought into a unified relation with each other by dint of brilliant planning by later architects (a topic to be discussed).

The museum, whose construction stretched from 1859 to 1913, was conceived by Professor Louis Agassiz as a center dedicated to nothing less than the study of the earth and of life on the earth! This vast scheme has brought together under one roof such diverse studies as zoology, mineralogy, botany, and anthropology. To house these a huge, six-level, U-shaped building of 364-by-269-foot dimensions was erected, but, as the diagram indicates, it did not grow systematically from a single center (Fig. 363). Though there are slight differences in detail between one part and another, the degree of architectural unity maintained is undoubtedly due to the fact that the design was kept deliberately simple, i.e., "industrial." Nevertheless, the consistency of material and of design is remarkable, considering that the building was constructed in twelve sections under the direction of no less than seven architectural firms over a period of almost sixty years.

1. 1859, HENRY GREENOUGH AND GEORGE SNELL
2. 1871, HENRY GREENOUGH AND GEORGE SNELL
3. 1876, ROBERT H. SLACK
4. 1876, ROBERT H. SLACK
5. 1880, GEORGE R. SHAW
6. 1888, STONE, CARPENTER & CO.
7. 1888–89, ARCHITECT UNKNOWN
8. 1889, ARCHITECT UNKNOWN
9. 1900, SHAW & HUNNEWELL
10. 1906, ARCHITECT UNKNOWN
11. 1913, WALTER S. BURKE



363. PLAN OF UNIVERSITY MUSEUM SHOWING CONSTRUCTION DATES

The first section (1859), devoted to comparative zoology, was designed by Henry Greenough and George Snell (Fig. 364). Their collaboration seems to have been a one-time affair. Greenough, brother of the sculptor and architectural critic, Horatio Greenough, was a sort of 18th-century gentleman-architect without professional training. He designed the old Athenaeum in Central Square (later used as the first city hall) and houses for a number of prominent Cambridge residents, including that of Louis Agassiz on Quincy Street (*Mid Cambridge*, pages 63-65). He may perhaps have felt inadequate to solving the structural problems or to supervising so large and complicated a building and therefore called on Snell for help. (George Snell was a Boston architect whose most important work was the Boston Music Hall, 1852, off Tremont Street.) The first unit of the museum has a spare, clean-cut quality, whose rectangular mass depends on a projecting entrance pavilion (entirely rebuilt on a much larger scale in 1895 and 1906) and on variations in window heights emphasized by the brownstone lintels capping each window. Such a restrained academic scheme reminds us that Greenough liked plain walls and accented windows, and it makes an interesting contrast with the Oxford Museum of contemporaneous date and identical function. The four-story building was composed of three horizontal divisions: a high basement with windows and two principal zones, each divided into a main story and a mezzanine. Later an attic story was added to make six levels lighted by windows. The distinction between principal and mezzanine levels reflects interior organization by which exhibition galleries are divided into a main floor augmented by a balcony surrounding the high central space of each hall. (Several such interiors can still be seen in the comparative zoology section.) The absence of picturesque elements in this block was appropriate for a building that was to be part of a much larger complex.

The original design underwent some modifications. One change in the early 70's added a mansard roof to the original wing in order to provide an additional office story (Fig. 365). When the 1876 (Peabody Museum) wing was built, a continuous line of arched windows was substituted for the mansard dormers so

364. UNIVERSITY MUSEUM, 1859. HENRY GREENOUGH AND GEORGE SNELL. PHOTO BEFORE 1870'S

365. AERIAL VIEW OF OXFORD STREET AREA IN C. 1875. CENTER: UNIVERSITY MUSEUM SHOWING UNITS I (1859) AND II (1870) WITH MANSARD ROOF. FOREGROUND: JARVIS FIELD

as to create a full attic story; in 1884 this attic scheme replaced the mansard roof on the original wing to bring it into conformity with the rest of the building. Another modification was to increase the height of all windows, especially those of the two mezzanine levels, thus making them regular floors (the second and fourth) though the original square mezzanine windows still remain in the 1859 wing. At the same time, flush brownstone lintels and later segmental brick arches were substituted for the earlier academic brownstone lintels capped by a crown molding. A small amount of Panel Brick decoration was incorporated in the southeast pavilion (1876) as well as those that frame the main (west) facade, and finally a large gabled pavilion filled with an arch enclosing a bank of windows was added in 1889 to the west facade to provide a principal entrance, even though each major section of the building continues to have its own entrance. Despite these accents there is a business-like directness about the design; essentially the museum is a huge warehouse for the storage and display of vast collections. Although the interiors have been subject to much remodeling, floor supports are usually exposed, and the utilitarian character of the structure is indicated by the functional exposure of iron stairs and cast-iron columns and by the interior use of brick similar to that employed outside.

366. PRESIDENT ELIOT'S SCHEME FOR NORTH YARD AS LARGE QUANDRANGLE, 1880

Long before the museum was completed, three large buildings were added to the North Yard: Hemenway gymnasium, Austin Hall, and Jefferson Physical Laboratories. Though not more than 50 yards apart, their styles of architecture and building materials were completely different, and they were not even placed on the same system of coordinates. To judge from an unofficial sketch plan that survives from about 1880, President Eliot may once have envisioned this area as a quadrangle centered on Holmes Field with buildings facing inward (Fig. 366). In the long run, however, expediency seems to have dictated the location of each new structure, which was generally oriented toward the existing suburban street pattern.

On June 24, 1878 the Corporation received a letter from Augustus Hemenway of Boston asking that a lot be assigned on which he might build a new college gymnasium; he informed them that plans prepared by Robert S. Peabody were already drawn. When the building was completed in January, 1880, Harvard not only had the largest gymnasium in this country but the first one to be equipped with special rooms devoted to activities like rowing, baseball, fencing, etc. The construction of such an elaborate building reflects the rapid upswing in athletic interest during the middle years of the 19th century. Rowing at Harvard began in 1844 and the college first rowed against Yale in 1852; baseball was introduced during the Civil War and the first intercollegiate game (with Brown) was played in 1863; the Harvard Football Club was established in 1872. In 1874 the Harvard Athletic Association, a student-run organization to coordinate track, boxing, and gymnastics was established. It is interesting to note that such athletic facilities, along with the later stadium, were alumni- rather than faculty-inspired.

The situation of Hemenway on the northeast corner of Holmes Place and Kirkland Street (the present site of Littauer Center) reflects the fact that college athletics were then centered in the north campus around Holmes and Jarvis playing fields, a condition further indicated by the location of the Carey (later Rotch) Athletic Building (1889; now demolished) fronting Jarvis Street. After the acquisition of Soldier's Field in 1890, activities began to shift to the south

367. HEMENWAY GYMNASIUM, 1878. PEABODY & STEARNS. PERSPECTIVE DRAWING. DEMOLISHED 1933

side of the Charles, a process accelerated when undergraduate houses were built along the river. After 1929 the Indoor Athletic Building became the center for undergraduate athletics and Hemenway was replaced by a small new gymnasium of the same name, designed in 1938 for use by law and other graduate students living in the North Yard.

The original Hemenway gymnasium of 1878 was animated by an assortment of gables, wings, dormers, chimneys, and cupolas, to say nothing of an entrance porch that looked like a porte-cochere (Fig. 367). The highly picturesque massing was encrusted with quantities of detail of more or less Renaissance derivation, a rich, free mixing of traditions and motifs that made this building the best Cambridge example of the Free Classic brand of the Queen Anne style. The large arched window framed by rusticated voussoirs on the main gable was very similar to that used later by an undocumented architect (but probably Peabody and Stearns) over the principal entrance of University Museum.

A short distance away stands Austin Hall, a building of great beauty but one whose peculiar emplacement still defies attempts by planners to bring some measure of order to this part of the North Yard. The commission to design a building for the Law School came to H.H. Richardson from the donor rather than from the administration. Edward Austin, a merchant who had made a fortune in the China trade and retired before he was fifty-five, seems to have been as autocratic in building his hall as had Nathaniel Thayer. The new building memorializes the invigoration the Law School was experiencing under Dean Langdell as it moved away from the old apprentice system of education established by Story. The enrollment began to rise in 1880, and in his Annual Report for that year President Eliot appealed for a new building for the school. Although the commission came to the Richardson office in February 1881, the first reference to the building in the Corporation records is in April of the following year, by which time the complete design had been approved by Austin. There had, however, undoubtedly been prior consultation with the university as the program for the building was defined. Nevertheless, a note in the minutes for April 24, 1882 confirmed officially that "no modification of the outside of the building . . . to be made without Mr. Austin's consent." The administration also agreed that no building would ever be erected within 60 feet of Mr. Austin's hall. Given this kind of independence, there was no more possibility of architectural consistency on the campus than on a street of suburban mansions.

368. AUSTIN HALL, 1881. H. H. RICHARDSON. PHOTO PUBLISHED 1886

The present situation of Austin Hall, today facing nowhere in particular, is explained by reference to a former street called Holmes Place. This was an L-shaped passage bordering two sides of a small triangular park known as the Little Common, then owned by the city but once part of the Cambridge Common (Fig. 359). The north arm of Holmes Place ran not quite parallel to Kirkland Street, hence the lack of alignment between Austin, which fronted Holmes Place, and Jefferson laboratories or Hemenway gymnasium (and later Littauer Center) which faced Kirkland Street. Like other early buildings in the North Yard, Austin simply faced the street that ran in front of it and took no notice of neighbors. Besides the university buildings just mentioned, there were two residences here: Gannett House (1838), which then faced south rather than east as today, and the very important early 18th-century Holmes house (Figs. 349B-349C). When his hall was finished in 1884, Mr. Austin paid another $3000 to have the Holmes residence demolished, despite its historic and architectural importance, simply to improve the appearance of his building.

While Austin Hall turned its handsome facade toward an ambiguous front yard, it completely ignored what was to the north, a field then used for athletics but since transformed into one of the most interesting outdoor spaces at Harvard. So disdainful of this field were architect and donor that not even a back door provided access to the area, an oversight that has caused no little inconvenience to later generations of law students who must get from Langdell to Austin in inclement weather through an underground passageway. Only very recently has

369. JEFFERSON PHYSICAL LABORATORY, 1884. SHAW & HUNNEWELL

this backyard been reclaimed by the construction of the International Legal Studies Center and especially by Ben Thompson's two handsome office buildings for the law faculty.

The facade of Austin Hall is picturesquely asymmetrical without sacrificing order (Fig. 368). Triple arches at the entrance center the composition, and wings of one story containing a lecture hall balance it. In the upper level variations in fenestration express differences of internal use—as for book stacks, faculty offices, and a lounge—but the constant width of window bays prevents these differences from creating disunity. The most striking quality of the building comes from its masonry, which combines pink granite and two shades of sandstone. The quarry-faced masonry generates a feeling of enormous strength, a sensation augmented by skilful contrasts with smooth surfaces and with carved decoration of small scale. Clear massing, consistency in fenestration, contrasting textures, and exquisite carving—a quality readily appreciated as a result of a recent cleaning—make this building a textbook example of Richardson Romanesque design. Yet one questions whether the polychromatic masonry, whose contrasts in color must have been garish when the building was new, did not then diminish the sense of the masonry's integrity? A little grime may be a good thing, and the university was well advised not to have cleaned the entire outside surface.

Quite unlike the two picturesque buildings just described is the Jefferson Physical Laboratory, the gift of T. Jefferson Coolidge in 1882 and designed by Shaw and Hunnewell (Fig. 369). In his memoirs the donor expresses satisfaction with its simplicity but says nothing about his role in its design. He does mention the fact that the building, one of the first in America constructed specifically as a physics laboratory, has an independent system of internal piers to support instruments that might have been affected by building vibrations. About the design there is an element of academic discipline in the way the facade is organized into bays framed by brick pilasters carried on a high base; but the designer did not hesitate to sacrifice facade symmetry when an entrance vestibule was required for the large lecture hall. This hall, with brick walls repeating the pilastered treatment of the exterior, is one of the handsomest classroom spaces in the university; and the use of exposed brick for interior walls in corridors, offices, laboratories, etc., began a tradition that would be followed in scientific and engineering buildings at Harvard down to World War II. As the north side of the laboratory faced Holmes Field, no entrance was provided in that elevation, although the pilastered wall treatment of the facade was continued there. By the same irony so often present at Harvard, the "backyard" of Jefferson is today much more attractive than the space upon which it officially opens, but there is no doorway by which the former can be reached.

Sixteen years later, Shaw and Hunnewell's next commission, Pierce Hall (1900), was placed facing Oxford Street at right angles to Jefferson Laboratory and with no visual connecting tie. Something of the same twin-entry plan was followed, though the use of white limestone and Classical detail represents a difference. Whether from the particular foundation conditions there or because the system had proved practical at the University Museum—where the same architects were currently designing an addition—the floor heights of Jefferson were maintained for Pierce. This has meant that the subsequent enlargement and connection of the two early buildings by means of placing Cruft and Lyman Laboratories between them has been achieved with visual harmony and a minimum of inconvenience to users. Indeed the design of Lyman Laboratory in 1930 by the Shepley office is one of the finest pieces of "augmentative" architecture to be found at Harvard. Rather than attempting to create an independent masterpiece, the designer used Lyman to tie together and unify buildings already there; the brownstone trim, dark brick, and single fenestration derive from Jefferson, but the cornice height and design continue those of Cruft and Pierce. The third story setback of Lyman also permits it to combine more easily with the geometric forms of its neighbors.

After the first burst of building under President Eliot between 1869 and 1871, no further undergraduate dormitories were undertaken by the university. When dormitories were next sponsored, they were for graduate students and were located in the North Yard. Perkins and Conant Halls were built in 1893, opposite one another on Oxford Street. Placed close to the street, they form a kind of gateway limit to the North Yard defining the large expanse of green in front of the University Museum (Fig. 370). The oblique view of Perkins at the bend in the street also serves as a very satisfactory terminus for the vista up Oxford Street. Designed by Shepley, Rutan and Coolidge, these buildings mark a new epoch in Harvard architecture as the first examples of the Georgian Revival style which was to dominate university building for half a century. These were also the first Harvard commissions for the firm that would so long hold a virtual monopoly of its building.

Five years before this milestone was reached the university erected (1888) another graduate dormitory with the aid of a quarter-million-dollar bequest from Walter Hastings. Located near Austin Hall and planned principally to house law students, Hastings Hall turned an indifferent shoulder to its neighbor, although it was careful to respect the 60-foot free zone around Austin which its donor had established as a condition of his gift. Hastings Hall was oriented toward Massachusetts Avenue and made a great thing of it; its facade is an almost too elabo-

370. OXFORD ST. LOOKING NORTH TOWARD PERKINS HALL OF 1893 BY SHEPLEY, RUTAN & COOLIDGE

rate collection of gables and bay windows, and the front lawn, defined by an elaborate wrought-iron fence, further isolates the building (Fig. 371). The rear (east) elevation of Hastings is by contrast almost barren, a characteristic engendered by the relatively small (bathroom) windows on this side. The tawny brick, terra cotta, and brownstone trim selected by the architects are harmonious in themselves, but they contrast unpleasantly with the materials used at Austin Hall and with the red brick (beautiful by itself) at the new Hemenway gymnasium. An interesting note in the Corporation records indicates that Cabot and Chandler, architects for Hastings Hall, were selected by executors of the Hastings estate from a list of four firms approved by the university, an indication of the administration's growing interest in the architecture of its buildings.

To complete the building program for the Law School—at least for the Eliot term—Langdell Hall was begun in 1906 by Shepley, Rutan and Coolidge. This school had grown prodigiously from 180 students in 1886 to 684 by 1908. Because by the time Langdell was planned, Harvard had used all the sites in this area facing a street, there was nothing to do but to build in Holmes Field. Here the difficulty was that each of the four large structures already skirting the field was placed with its back to the field, a situation creating a problem to secure an orientation for the new structure. Chief offenders, because they were closer as well as administratively associated, were Austin and Hastings Halls. The new building was placed on the west side of the field, parallel to the axes of Massachusetts Avenue and Oxford Street but scrupulously respecting the prescribed 60-foot interval around Austin Hall. Since there was no possibility of a visual connection with Austin, the architects of Langdell simply ignored it. The white limestone and Classical forms of Langdell show how completely contemporary taste had rejected the dark color and picturesque forms of Richardson for the imperial mood of the new Classicism. This building would have been at home on the campus of Columbia University or of many other institutions, and its style is very similar to that of Harvard Medical School in Boston, begun a year earlier by the same architectural firm. The regal porticos of the Cambridge building open upon no formal axes and the principal walkway by which one approaches the building forms so sharp an angle with the facade that it is impossible to comprehend the composition as a whole or to appreciate its hierarchical sequence of pavilions, colonnades, and wings (Fig. 372). Instead, all this grandeur is lost on a very large quadrangle, well filled with oak trees. Only the south third of Langdell was constructed at first, the building not being completed until 1928.

371. WALTER HASTINGS HALL, 1888. CABOT & CHANDLER

372. LANGDELL HALL, 1906; 1928. SHEPLEY, RUTAN & COOLIDGE; COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

The reclaimed portions of the Foxcroft estate provided sites for several new buildings. At the corner of Kirkland Street, Lowell Lecture Hall (1902)—the gift of the president-to-be and designed by his cousin Guy Lowell—took the place of one of the five large houses of the 1820's on Professors' Row (*Mid Cambridge*, page 28). A successful combination of Classical and Baroque elements, this building of brick and limestone was compatible with the emerging Neo-Georgian image of Harvard. Particularly interesting are the windows in the pedestal-like basement which are closed by flat arches with very heavy voussoirs. A monument to Eliot's elective system, which encouraged large survey courses, and for a long time the university's principal lecture hall, the cube-shaped building dignifies the corner on which it stands without attempting to scorn or detract from Memorial Hall across the street, which by this time was already considered quite old-fashioned.

On Divinity Avenue, Randall Hall (1898; Wheelwright and Havens) was built as a dining place for economy-minded students but requisitioned in 1912 to store part of the university library while Widener was under construction. After that it served as the university printing plant until demolished to make way for William James Hall (1963). Up the street stood the Semitic Museum, a Georgian Revival design of 1902 and the first of three buildings in this area designed by A.W. Longfellow, the others being Coolidge and Gibbs Memorial Laboratories. These were planned as part of an unrealized group of buildings, but their relatively small size set at fairly generous intervals produces a feeling of clutter and of indecisive use of space, and it is fortunate that this size of building was not repeated.

This leaves to be described only the northeast corner of the North Yard, an area occupied by the Divinity School. One of Harvard's most picturesque buildings is the former theological library building, now known as the Farlow Herbarium. Designed in 1886 by Peabody and Stearns, the many-gabled, two-story brick building looks rather like a large residence and is an example of what good work that office often did. Though set close to Divinity Hall, the architectural relation of the two was minimal, and it was not until the erection of the Biological Laboratories in 1930 that the two theological structures were brought into a meaningful unity, (a topic discussed later).

Andover Hall of 1910, built immediately after the Eliot period, will be discussed here because of its topographical proximity to structures just mentioned. Not a regular Harvard commission, it was built by Andover Theological Seminary, which moved from Andover in 1908 to be affiliated with Harvard Divinity School. The building's distinctive architecture and isolated site illustrate its separate institutional identity. Turning a back upon straggling Harvard outbuildings and playing fields, which then occupied this corner of the North Yard, Andover faces Francis Avenue and a neighborhood of fine residences around Shady Hill. The granite building follows the Collegiate Gothic manner so prominent on Ivy League campuses but otherwise absent at Harvard. The work of Allen and Collens (who were usually concerned with churches), the design does not quite succeed: symmetry is forced and uncomfortable, two-stories of dormitories being used to balance a high-ceilinged chapel with traceried windows (Fig. 373). But to a prewar generation Andover Hall better corresponded to what an ecclesiastical school should look like than did old Divinity Hall, which was transformed into dormitories.

Beyond the two Yards there was scattered building. Kittredge Hall, built as the Gray Herbarium and now used for the Harvard University Press, was added to the Botanic Garden; though designed in 1911-14 by William Mowll, it actually dates from the Lowell era. On the banks of the Charles River, Stillman Infirmary (now demolished) was designed in 1901 by the Shepley office. The development of the lavish and formal campus for the Medical School (1905; the Shepley office) is important for Harvard but has no place in a history of Cambridge architecture.

This great amount of building was not achieved easily, especially during the early Eliot years, for the college had meager funds with which to build and the Commonwealth had, since 1833, refused financial aid. (An exception was an

373. ANDOVER HALL, 1910. ALLEN & COLLENS

allocation of $100,000 for the Museum of Comparative Zoology in 1859—that had been granted out of admiration for Professor Agassiz, and the building was controlled by an independent corporation until transferred to Harvard in 1876.) Eliot, therefore, in constant search for funds, was thrown on the mercy of individual donors or semi-independent committees formed to raise funds for specific buildings. Of Eliot's thirty-five buildings, twenty-two were the gifts of individuals; six, such as Memorial Hall or Phillips Brooks House, were financed by special fund drives; and only three—Holyoke House, the addition to Gore Library, and part of the 1888 addition to the University Museum—were built with university funds. (Small deficiencies in the cost of other projects were also made up by the university.) Some of the donors, like Nathaniel Thayer and Edward Austin, seem to have exercised almost patronal rights in selecting the architect and the style of the building; other gifts, like the legacy from the Sever estate, were spent under direct university supervision.

Such a situation naturally led to substantial diversity among the architects retained. In the forty years of Eliot's administration, thirteen firms worked for Harvard. Peabody and Stearns led the list with six commissions; McKim, Mead and White, A.W. Longfellow, and Shepley, Rutan and Coolidge had four each; Ware and Van Brunt had three, with at least three important remodelings; Shaw and Hunnewell, three; three firms did two buildings each (Ryder and Harris, H.H. Richardson, and Guy Lowell). As to which firm exercised a dominant influence, it may be observed that Ware and Van Brunt were important in the early 1870's when Memorial Hall was underway, Harvard's most ambitious undertaking of the century; but despite this achievement and the skilful remodeling of several buildings, they received no commissions after 1876. Peabody and Stearns (the former, the president's brother-in-law) enjoyed the most consistent patronage, with commissions extending from 1871 to 1907; Charles McKim's influence was paramount between 1890 and 1903 (Johnston Gate and the Stadium). What for convenience we term the Shepley office (at first Shepley, Rutan

and Coolidge but today after several changes in name known as Shepley, Bulfinch, Richardson, and Abbott) did not obtain its first commission until 1893 (Perkins and Conant Halls), though it was to have a virtual monopoly of Harvard commissions under President Lowell. If not, in the long run, followers of H.H. Richardson's style, this firm succeeded to his architectural practice, the partners being trained in his office, and one of them, George F. Shepley, married to Richardson's daughter.

If one may not speak of a single Eliot style of architecture, he can identify an Eliot real estate policy. Its formation was in part historical, following a decision of the Massachusetts Supreme Court (Massachusetts General Hospital vs. The Inhabitants of Somerville) in March 1869, the first year of Eliot's tenure, which had ruled that a city could not tax a charitable or educational institution for the unimproved land it owned. Under this ruling Harvard was relieved of a yearly tax burden of $2500. This was the signal to increase land acquisition, and before the next year was out Harvard had acquired Jarvis Field (in exchange for the Delta upon which Memorial Hall was to be built) and accepted the gift of 70 acres in the Brighton marshes from Longfellow and his friends; in 1871 the 5.3-acre Holmes Field was purchased for $31,500, bringing Harvard holdings in unimproved land to a value of almost $107,000. The other large gift of land was Soldier's Field, donated by Major Henry Lee Higginson in 1890. President Eliot decreed, however, that money saved in taxes should be expended for maintenance of grounds, thus repaying the community to some extent for tax losses. In 1870 a campaign was launched to landscape the Yard; Jarvis and Holmes Fields were graded in 1874-75; $5000 was expended on brick and stone college sidewalks in 1874. Tree-planting and pruning went forward in 1869, 1871, 1876, and the late eighties.

If the policy of land acquisition was clearly a strong point of Eliot's administration, planning for its use was not, though it was a matter much discussed in the decades after 1890. The president's son, landscape architect Charles Eliot, after three years' work of supervising the grounds (1887-90), criticized the Corporation for not adopting a definite scheme for physical development: "This permitting donors of buildings and gates to choose their sites is fatal to general effect. Outside the quadrangle the Yard is already a jumble of badly placed buildings and roads . . . ." The same note is echoed in Charles McKim's exasperated comment to the Treasurer that "some plan is woefully needed at Harvard . . . ." and it is confirmed by a resolution passed by the Board of Overseers in 1894 and sent to the President and Fellows, pointing out the need for a plan for future development of college property. The resolution also recommended the appointment of an advisory committee of competent professional men selected by members of the university's governing boards to approve all plans for future building.

The President and Fellows did not seem to think such plans for future development or the appointment of an advisory committee necessary. They did, however, commission a series of plans by Aspinwall and Lincoln (1895) showing the boundaries of the college real estate in Cambridge and the locations of existing buildings, with notes concerning restrictions and conditions governing the placement of buildings on the various parcels. Apparently the Overseers did not consider this a satisfactory solution, for a subcommittee of the board (Robert

374. PLAN SUBMITTED BY THE HARVARD BOARD OF OVERSEERS TO THE CORPORATION, NOVEMBER 1896. PROBABLY DRAWN BY OLMSTED, OLMSTED & ELIOT

Peabody, Augustus Hemenway, and George Shattuck) commissioned a study of their own, entitled "Suggestions for the Orderly Arrangement of the Grounds of Harvard College." This they submitted to the Corporation in November 1896 (Fig. 374). Probably prepared by Olmsted, Olmsted and Eliot, the plan accompanying this report concentrates on the Yard and the North Yard, and attempts to patch together a sequence of axes and symmetrically arranged buildings which looks more orderly on paper than it would have read in actuality. Another interesting aspect is the way it anticipates a library as large as Widener yet ignores Harvard Yard by attaching the huge building to the south of Gore Hall and by providing a great porticoed facade fronting Massachusetts Avenue. From there a processional way leads to the river where a parkway was being planned by the city.

The Olmsted proposal was characteristic of several others that followed during the rest of Eliot's administration, none of them acted upon. As late as 1905, in response to a report by the Visiting Committee on Fine Arts and Architecture, the Treasurer of the Corporation, Charles Francis Adams, wrote that the result of building during the previous sixty years "is a disgrace, and I imagine that Eliot's long administration will hereafter be judged by it." Nevertheless the ideas contained in the various proposals inspired a group of loyal alumni to lay the groundwork for future expansion toward the river, a topic to be discussed in relation to the Lowell administration.

Harvard Under President Lowell

During his twenty-four-year term of office (1904-33) A. Lawrence Lowell dedicated himself and his fortune to Harvard with intense personal concern. There was a reassertion of the importance of Harvard College and of many of the educational ideas that Eliot had stood for in the early seventies. Attention was again focused on the quality of undergraduate life, and the system of elective courses, which had sometimes encouraged superficiality, was reinforced by requiring the student to choose one field for concentration with comprehensive examinations. It was also a period of enormous physical change for Harvard, with the construction of more buildings than in all previous administrations combined.

Not only was there a deliberate acceptance of the Georgian Revival style of architecture but, more important, the administration recognized the necessity for comprehensive planning. Vacant university land was rapidly being occupied and the school was beginning to encroach on the town at the same time as the educational commitment of the university was expanding; no longer was it possible to place each new building as an independent entity. In formulating plans, the university also recognized its responsibilities to the surrounding community. As the result of adherence to policies of design and planning (and perhaps also because so much building was accomplished in a relatively short span of time before the accepted plans came to be regarded as outmoded), a new architectural order emerged throughout the extended campus.

Early in Lowell's administration (1912) the Harvard Square Businessmen petitioned the Mayor of Cambridge to request Harvard to prepare plans "as a basis for the present and future development of Harvard Square" (an idea still present sixty years later). The resulting plan, prepared in 1913 by E.J.A. Duquesne of the architecture faculty, proposed Prescott Street and Appian Way as east and west limits of Harvard expansion and worked principally within the property then owned by the university and affiliated groups. Included in the accompanying report were recommendations for a zoning ordinance and a call for architectural unity by emphasizing the Georgian tradition of the school's oldest buildings.

Nevertheless, Lowell had been president twelve years before the university appointed a committee in 1922 to supervise the planning of grounds and buildings and charged it with formulating a working plan—though not a mold—within which Harvard should develop in the next fifty to one hundred years. The result was the "Study for the Future Grouping of Buildings," begun by the Shepley office in 1922 and carried through many later stages. Since Charles A. Coolidge was the partner in charge of these plans, they are referred to as the "Coolidge Plans" (Fig. 396).

375. WIDENER LIBRARY, 1913. HORACE TRUMBAUER

In the course of the Lowell years, Harvard Yard pretty much took the form it now has. An epochal change, which created Tercentenary Quadrangle as the visual as well as educational core of the university, was the construction of Widener Library and Memorial Church. These buildings are sufficiently monumental and the space of the quadrangle sufficiently commanding to dominate the widely dispersed Yards. The new library was the largest and most important building the university had yet undertaken, and it filled a desperate need, since the repeated remodeling of and five additions to old Gore Hall had failed to produce a building adequate to the university's growing requirements. Today in addition to the 2,640,249 volumes in Widener itself, there are approximately eighty-two departmental branches in Cambridge alone, some, like the law library, of formidable size.

As the heart and matter of a university, a library should be imposing in mass and in design. Though often criticized for being elephantine, Widener fulfils both these visual functions and its imperious colonnade and awesome flight of steps across the main facade do not shrink from telling us that it (with its subsidiaries) houses the third largest collection of books in America (Fig. 375).

In addition the facade forms an admirable sounding board for the human activity that centers in the quadrangle and the diverse architectural forms that surround it. Erected in 1913 as a memorial to Harry Elkins Widener of Philadelphia, the building was designed (as a condition of the gift) by an architect of that city, Horace Trumbauer.

376. VIEW OF HARVARD BUILDINGS FROM HARVARD SQUARE IN 1935.
AT LEFT: STRAUS HALL, 1925, COOLIDGE, SHEPLEY, BULFINCH & ABBOTT.
AT RIGHT: LEHMAN HALL, 1924, COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

377. LEHMAN HALL. EAST ELEVATION WHICH FACES HARVARD YARD

If Widener dominates Tercentenary Quadrangle and Harvard Yard by sheer bulk, the slender, soaring spire of Memorial Church serves as a beacon to the university's center (Fig. 312). Since the architecture of the church was discussed in Part Three, suffice it here to observe how infinitely better is the design, placement, and scale of the church than was that of Appleton Chapel (Fig. 347),its predecessor on the same site. The location of the tower with the portico at its base on axis with Widener serves to define the limits of the quadrangle, and together they form the "scena" and "cavea" of a great unroofed theatre where Commencement exercises are held, an arrangement that gives rise to the name "Tercentenary Theatre." The enormous Doric portico, which has the heavy feel of the Greek Revival, though somewhat incongruous with the light Federal detailing of the Bulfinch-like spire, is wisely scaled to the ponderous colonnade of Widener.

The other stroke of genius in formulating a cohesive and unified feeling within Harvard Yard was the series of seven structures along Massachusetts Avenue which effectively "cloister" the Yard and screen out the noise and the visual disarray of Harvard Square (Figs. 376-377). Designed between 1924 and 1930 by Charles Coolidge of the Shepley office, six of the buildings are dormitories and one was erected as the bursar's office but now serves as the social center and commons of Dudley House for commuting students. Not only do Mower and Lionel Halls screen off the traffic, they define two small quadrangles by filling in a fourth side of each. In this manner the space of the small quadrangles achieves a sufficiency instead of being "drained" into the much larger space of the Common. Both Lionel and Mower are kept to two stories in deference to the small scale of Holden Chapel standing between them. Further south, Straus Hall (1926) is three stories high in response to the taller mass of Massachusetts and Lehman Halls, and appropriately the quadrangle between it and Matthews is larger than those next to Mower and Lionel. Under President Lowell, Massachusetts Hall was thoroughly reconditioned (1924) and returned to its original function as a dormitory, (although executive offices were located on lower floors of the building in 1939).

The more public function of Lehman Hall was announced by an architectural frontispiece employing giant pilasters repeated on both major elevations. Here the mass is high enough to emphasize the role of the building and to define the triangular open space on its east. Because of proximity to the square and the subway kiosk, the most intensive pedestrian traffic in Harvard Yard converges in this triangular area. It is planted with beech trees and has been paved with an interesting combination of brick and asphalt which acts as a directional guide to users; the skilfully defined space is accented by contemporary sculpture. The eleven entries of Wigglesworth Hall (1930) are strung along the southern perimeter of the Yard in three buildings. Because of their proximity to Wadsworth House and the restricted area between some of the units and Boylston, these dormitories are held to two stories.

Within the Yard another, but less important, change was the construction of a new residence for the president (Guy Lowell, 1911) (Fig. 267). Like the previous (fifth) president's house, the new one holds aloof from the Yard as a private residence should. Situated about 50 feet northeast of its predecessor, the building is isolated from the Yard by a broad zone of planting and turns its facade to Quincy Street, as did a number of other large dwellings now demolished but still standing when this was built (*Mid Cambridge*, pages 64-65).

378. FOGG ART MUSEUM, 1925. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

379. BUSCH–REISINGER MUSEUM, 1914.
GERMAN BESTELMEYER; WARREN & SMITH

Three of these residences on the east side of Quincy disappeared during Lowell's presidency to make way for new Harvard buildings. In 1925 the new Fogg Museum rose on the site of two houses, one of them formerly belonging to the Agassiz family. The emplacement of Fogg is much more successful than is its architectural design, since the building is a vital factor in defining the Sever Quadrangle whose eastern limit had previously been inadequately closed by the Memorial Fence (Fig. 378). The interaction of the various functional components of this building (museum, offices, classrooms, library, and public lecture hall) was inadequately studied when the building was programmed, an indecision that inevitably led to visual confusion in exterior design as well as plan. Much of the architectural ornamentation used at the Fogg derives from such impeccable sources as the balcony consoles and pilastered window frames of the Old State House in Boston. The interior focus of the museum is the enclosed courtyard executed in splendid travertine, representing a four-fifths-scale replica of the famous San Gallo loggia at Montepulciano. Before the 1967 enlargement, which moved most of the books and readers to a new underground wing on the east, the pivotal location of the Fine Arts Library contended with insurmountable problems of noise and control. Another peculiarity is the 1932 addition on the northeast corner, one wall of which is of asbestos shingling. This looks strangely temporary—and so it was supposed to be, until a change in zoning laws made the planned enlargement impossible.

Other changes in this neighborhood produced the Harvard Faculty Club (1930; the Shepley office) and the fire station (1933). The club stands on the site of the old residence of Henry James, Sr., a house that had already been remodeled by the Colonial Club, an early service club for townspeople and faculty. By turning the narrow end of the new building to Quincy Street, the residential scale of the street was not disturbed, and the brick Neo-Georgian architecture blended nicely with that of nearby Harvard buildings. The fire station, a rather fussy Georgian Revival design by Sturgis Associates, stands on the triangular site of Harvard's first gymnasium. The city obtained the land from Harvard in exchange for the small park bounded by Holmes Place known as the Little Common.

A great deal of Lowell building took place in the North Yard, but the work there shows less adherence to plans for the area or to architectural consistency than does that of the main or south Yards. One place at which the North Yard falls apart visually is Divinity Avenue, where almost every building is different in size, shape, style, and material and where the structures stand in competitive isolation. Completely out of context is the Busch-Reisinger Museum on the corner of Kirkland Street, a bit of pre-World War I Germany set down in Cambridge (Fig. 379). Fortunately the building with its enclosed garden is large enough to constitute a fairly self-sufficient unit and succeeds in announcing its avowed purpose, i.e., to inform this country of the achievements of Germanic culture. Like the original contents, the building design was exported from the Old World; the plans by Professor German Bestelmeyer were drawn in Munich and sent to Cambridge where they were adapted for Yankee construction by Professor Warren of the Harvard School of Architecture. The museum collection was displayed as early as 1903 in the first gymnasium on the triangle, but because the new building was not finished before the entry of this country into World War I, the opening of the museum in its new home was delayed for reasons of security until 1921. Handsome enough in its own right, there is little that can be done to integrate this structure with its neighbors. In spite of this isolation, the building disrupts the environment less than does the skyscraper format of its recent neighbor, William James Hall (1963).

380. PAINE HALL (MUSIC BUILDING), 1913. JOHN MEAD HOWELLS.
FANNY MASON WING, 1970. SHEPLEY, BULFINCH, RICHARDSON & ABBOTT

381. OXFORD ST. LOOKING SOUTH
TOWARD MEMORIAL HALL.
AT LEFT: MALLINCKRODT
LABORATORY, 1927, COOLIDGE,
SHEPLEY, BULFINCH & ABBOTT.

Too small in scale for the big spaces around them are two research laboratories, Wolcott Gibbs and T. Jefferson Coolidge, built in 1911 and 1912 by A.W. Longfellow and planned to be part of a larger grouping of eight similarly scaled buildings whose east-west axis focused on a tower where Mallinckrodt now is. Despite their workaday character, it is noticeable that the trim of these buildings is still of limestone, which had not yet been priced off the market by wartime increases. The simple character of these buildings contrasts with 2 Divinity Avenue, designed in 1930 by Horace Trumbauer for the Institute of Geographical Exploration. With regard to the last, one might say of this elegant building with marble trim and refined detailing that it also (to use the words of that early Harvard critic) is "too gorgeous for a Wilderness" like Divinity Avenue. When the structure was altered in 1957 to house the Harvard-Yenching Institute–a separate institution formerly located in Boylston Hall–a satisfactory rear addition was made by the Shepley office in keeping with the Semitic Museum adjacent to it.

Although not on Divinity Avenue, Paine Hall (Music Building) possesses the elaborate detail of 2 Divinity Avenue. A music auditorium and classroom building designed in 1913 by John Mead Howells, it illustrates the Federal Revival in full flower at Harvard during these years (Fig. 380). Its position is unfortunate, enough off center axis of the facing Jefferson laboratory to be awkward, its delicate Federal ornamentation appearing almost frivolous in contrast to the heavy scale of the laboratory–to say nothing of the looming mass of the Undergraduate Science Center which now towers behind. Furthermore, the contrast between the brick used in the laboratory and in the music building is distinctly unpleasant, a discrepancy aggravated by still another type of brick used for the Fanny Mason wing added to Paine Hall in 1970.

Indeed this corner of the Yard, from Cruft laboratory to Littauer Center, is the most confused part of the larger Harvard campus. No building is designed with feeling for its neighbor (except for Lyman with regard to Jefferson laboratory), and the open spaces are indecisive. Whereas the addition of buildings during the past fifty years has generally improved the environment in most sections of Harvard by ordering and defining spaces, here that has unfortunately not been the case. This spatial confusion has not gone unnoticed, and several plans to remedy it have been drawn up, followed to a degree of completion, and then ignored. As an example, the Coolidge Plan of 1922 proposed Mallinckrodt Laboratory as the termination of a vista extending east from the Common, its width defined by Jefferson laboratory, Paine Hall, and additional buildings to the east (Fig. 395). Of this scheme, however, only Mallinckrodt was built, and its detailing, if not its imposing size, render it inadequate for such a pivotal role. Furthermore, Paine and Jefferson are too different in scale, design, and material to be paired in so formal a manner. The vista or mall was undermined in 1938 by the construction of Littauer Center on a different axis and by the rotating of Gannett House to provide a site for the new Hemenway gymnasium. The project had obviously been abandoned by the time McKay Laboratory was begun in 1951, thereby blocking the axis.

Even though Mallinckrodt would not have been an appropriate focal point for a mall that included such diversity in scale and material as Austin, Paine and Jefferson, it is successful in a secondary supporting role and contributes appreciably to lower Oxford Street. Placed fairly close to the roadway, the enormous mass of the laboratory forms an effective wall for the street corridor leading to Memorial Hall (Fig. 381). Though admittedly this spatial corridor did not take shape until the construction of Gordon McKay Laboratory directly opposite, together these two long, high structures focus the view towards the west facade of Memorial Hall seen at an angle. This strongly composed vista is relieved by the portico of Mallinckrodt viewed at a sharp angle, and one is grateful for the fact that the new Science Center respects the line of the corridor. The scale of Mallinckrodt is deceiving because one at first takes the windows to be of domestic size, whereas they are something like 9 feet in height, and there is little architectural enrichment to give scale. Aside from the portico–which seems to be a simplified version of the scheme for Massachusetts General Hospital–the only ornamental relief comes from color contrasts in the brick.

382. BIOLOGICAL LABORATORIES, 1930.
COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

Thus stripped of decoration, Mallinckrodt expresses the basically utilitarian concept of "industrial Harvard" architecture. Its interior walls of unplastered brick conform also to the functional tradition established by the University Museum and Jefferson Laboratory. Built in 1927, Mallinckrodt and Converse Laboratories—the latter a smaller and architecturally simpler appendage—make an interesting contrast with the more elaborate and picturesque dormitories being designed at about the same time by the same architects (the Shepley office).

Lowell's administration also saw the completion in 1928 of Langdell Hall according to the scheme established in 1906. In achieving this, the new addition barely avoided collision with the old Carey Athletic Building, which must already have been scheduled for removal because athletics were being phased out of the North Yard. Indeed the old baseball cage, rechristened the Rotch Building, long before its demolition in 1950 had been converted to scientific uses. Another structure to be completed was the University Museum, to which the final unit was added in 1913. Here one commends the restraint on the part of the designer, Walter S. Burke, Superintendent of Buildings and Grounds, who continued the basic architectural scheme established in 1859.

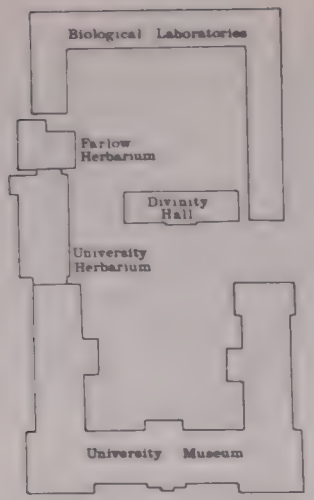
Representing a striking exception to the Georgian Revival style generally favored by the Lowell administration, the Biological Laboratories of 1930 is one of the most important buildings in Harvard architectural annals. Yet another example of "industrial Harvard," it was designed by the Shepley office, which was concurrently engaged on the remarkably sensitive and self-effacing design of Lyman Laboratory as well as on the houses along the river. The laboratory, containing some 214,000 square feet of space, is one of Harvard's largest. The architecture belongs unmistakably to the 1930's and, though executed in brick, is related to buildings like Rindge Technical High School or the Central Square Post Office (both 1932). Using factory sash, the fenestration is organized in vertical bays separated by wide pylons of brick (Fig. 382). Since spandrels between floors are

383. BIOLOGICAL LABORATORIES. DETAIL OF CARVED BRICK

384. SEVER HALL. DETAIL OF CUT BRICK

glazed, the windows form continuous vertical panels of glass, but the top (fifth) story has no windows in elevations facing the court. Without Classical decorative details, this architectural composition with alternating stacks of window and wall and a windowless top story nevertheless recalls the basic relation of a colonnade and entablature; where rear elevations employ windows on the top story, however, the utilitarian nature of the building is more clearly seen.

The brick surfaces of the top story are decorated with an engaging series of reliefs depicting birds, animals, and fish, which were carved into the bricks after they had been laid (Fig. 383). These vignettes recall the fenestration below, and the crisp carving is the more effective because surfaces elsewhere on the facade are simple. The work of Katherine Ward Lane, these reliefs constitute magnificent architectural sculpture. In the way the brick ornament counts primarily as masonry and then as decoration, this work is somewhat related to earlier Panel Brick work and to the splendid cut-brick ornamentation used by Richardson at Sever Hall. (In the latter case, however, the floral or geometric designs were carved in the brick before they were fired; Fig. 384.) Nevertheless, when the vignettes at the laboratory are examined as ornament, they are full of interest.



385. PLAN OF UNIVERSITY MUSEUM, BIOLOGY LABORATORIES, DIVINITY HALL, AND FARLOW HERBARIUM

While the architectural design is good and the brick relief decoration very good, the genius of the laboratory is revealed in the way it is situated in relation to preexisting buildings. Incorporating the old theological library of 1886, now Farlow Herbarium, as an appendage of one wing, the new laboratory wraps itself around three sides of Divinity Hall to create an open court of some 200 by 240 feet (Fig. 385). Since the hall occupies most of the Divinity Avenue frontage, there is no direct entrance to the laboratory court; one gets to it from the avenue by means of passages on either side of Divinity Hall, but, once there, senses the spaciousness and sufficiency of the court. As the laboratory is not centered on Divinity Hall, the two approaches to the court have different characters: one narrow, the other broad and terraced. The court, moreover, is lower than the street, while Divinity Hall sits on a terrace so that the distinctive and independent spatial character of the court is emphasized.

As seen from the diagram, the Biological Laboratories form a counterpart to the University Museum, each with its own courtyard and with Divinity Hall between them. Continuity between the two complexes was assured by the construction of the University Herbarium in 1953 which, by connecting them, created a 500-foot stretch of buildings along the north side of the combined quadrangles. Such an area, surrounded by five-story buildings, could have become a dreary, overbearing space, a consequence happily averted by the presence of trees and the off-center placement and lower height of Divinity Hall, which now becomes a kind of jewel in a larger setting. Farlow Herbarium introduces variations in fenestration, floor level, and roof line, which keep the scale and shapes from being factory-like. The secluded, harmonious yet animated impression made by this quadrangle would surely be destroyed if anything happened to either Divinity Hall or Farlow Herbarium.

To accomplish this, the university launched a dual program of building new dormitories and of purchasing old ones. Building came first in 1913, with the construction of three freshman dormitories near the river: Gore, Standish, and Smith Halls. The administration next concentrated on the purchase (during World War I) of dormitories along the Gold Coast. These luxurious quarters put up by private interests were not difficult to obtain, since they had never been financially successful. Randolph Hall (built 1897) was the first acquired (1916) and along with it came 18th-century Apthorp House as well as the University Squash Courts of 1908 date. In 1918 Dudley (1895) and Little (1854) Halls were added, followed in 1920 by Claverly (1892), Apley Court (1897), Russell (1900), and Westmorly (1898, 1902) (see Part Two).

The next phase of Lowell's campaign centered first on Harvard Yard, where Lionel and Mower were erected in 1924, Straus in 1925, the three sections of Wigglesworth in 1930, and then moved to the river where a fourth hall for freshmen (McKinlock) was erected in 1925. Finally in 1929, with the aid of the Harkness gift, he launched the great campaign of house-building that came to fruition in 1931. Three new complexes were built as self-sufficient houses for upperclassmen—Dunster (1929), Lowell (1929), and Eliot (1930)—and four houses were created by remodeling halls that had previously served as freshman or private dormitories—Kirkland, Winthrop, Leverett, and Adams. When upperclassmen moved into these quarters, the freshmen were transferred to Harvard Yard, which had previously been reserved for seniors. As undergraduates occupied this new South Yard, athletic facilities were developed here. The large Indoor Athletic Building was erected in 1929, while across the river on Soldier's Field were built Briggs Cage (1926) and Dillon Field House (1931); the two boathouses had, of course, been on their sites since 1900 and 1906.

A disturbing unit in this otherwise splendid complex is the University Herbarium built long after Lowell's time. A design that might pass in a mediocre environment but that is offensive here, it was built in 1953 as a connecting link between the Museum of Comparative Zoology and Farlow Herbarium. While the basic mass and selection of brick may be commended, the fenestration is grossly at odds with that of its neighbors. Nothing in related structures suggests the narrow strip windows of the upper stories or the scaleless sheets of plate glass surrounding the entrance; indeed the pattern of isolated windows employed on the rear (north) elevation of the new herbarium would have been better for the facade, though still not good. It is almost as if the architect had gone out of his way to create a design that would compete with rather than complement its neighbors, and one is surprised to learn that it is the work of the Shepley office which twenty years earlier had produced the Biology Laboratories and Lyman Laboratory, so marvelously suited to their particular architectural settings.

The most spectacular achievement of the Lowell regime, architecturally and in terms of university policy, was the creation of the house system, which completely revised the university's earlier attitude toward student housing and which resulted in the vast building program along the riverfront, a program that could only have been realized with the munificent assistance (more than $13 million) of Edward S. Harkness. In contrast to President Eliot, who inclined to the attitude of Continental universities that left the student to work out his own living and social arrangements, Lowell returned to the early Harvard concept of "cohabiting for Scholasticall communication," an attitude which produced great efforts to house students and faculty so they could live and study together.

386. VIEW OF HARVARD HOUSES FROM ACROSS THE CHARLES RIVER. PHOTO OF 1936

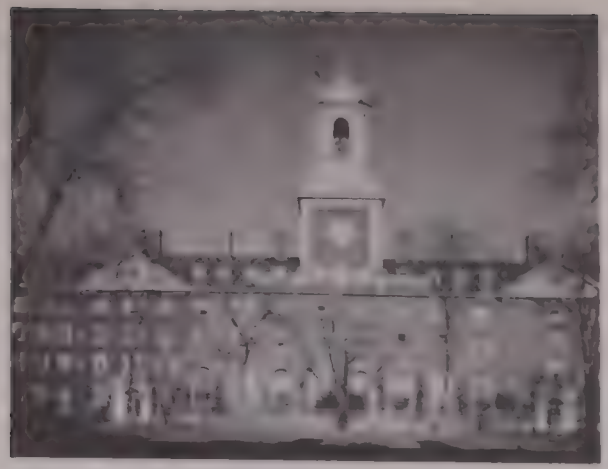
387. KIRKLAND HOUSE, WILLIAM SMITH HALL, 1913. SHEPLEY, RUTAN & COOLIDGE

The houses along the river form one of Greater Boston's majestic sights (Fig. 386). Looking more like palatial residences than college dormitories, the structures are set among trees which unite them as a group yet preclude visual competition between individual buildings. Several towers are discernible above the treetops but not so many as to clutter the scene, and the houses open toward an almost idyllic foreground (if one can forget the traffic, of the riverfront and parkway), the remarkable thing is how individualistic yet how harmonious are the five large structures fronting the river. Each appears to have grown separately in response to its own set of requirements, yet they are harmonious because those requirements were not dissimilar. Because there is so little evidence of monotonous repetition, it is hard to imagine that all were designed by one architectural firm within a sixteen-year period.

The houses along the river represent a conscious effort by the administration to extend the atmosphere of old Harvard Yard to a new South Yard and thus to symbolize the continuity of the Harvard "Collegiate Way of Life." One means of accomplishing this was the conscious imitation of the architectural style used in the Yard. There could be no reproduction of specific old buildings, because the new ones were much larger in scale, but each house was sited and detailed in a distinctive way. The plan of none of them is exactly the same, and some were fitted to irregular sites. Even more subtle was the way architectural ornamentation was handled, with one dormitory borrowing details from a particular model, another from a different one, so that each achieved an individuality of its own.

Thus Kirkland House is the only one to use the twin chimneyed gable connected by a horizontal parapet found at Massachusetts Hall, and McKinlock Hall makes the only use of the stepped gable, volutes, and paired oculus windows from the Old State House in Boston. The recessed entries with pilasters superimposed on rusticated jambs of the old main (west) front of Hollis Hall were copied with great appropriateness in the old Yard on Mower and Lionel Halls and later at McKinlock; the florid scroll work from the pediment of Holden Chapel is used in simpler form at Dunster House. The pedimented pavilion superimposed on a hip-roofed elevation found on the narrow ends of Harvard Hall is used at Standish Hall, though here the wooden cornice is more intricate than the original worked in brownstone. When, because of their larger scale, the houses sometimes needed heavier or more elaborate architectural accents than colonial work provided, the designer did not hesitate to turn to more opulent English precedents, as at Gore Hall, which recalls the late 17th-century garden facade of Hampton Court. However, the one detail most popular with the Shepley office was the console balcony and enframed window of the east facade of the Old State House in Boston. An almost exact replica of this famous composition was used on the facade of Fogg Museum and in simpler form and smaller scale at McKinlock Hall and Eliot House. In short, this South Yard gives the feeling of a neighborhood that has grown harmoniously over a period of time rather than of one planned all at once by a designer standing at a drafting table. This, indeed, is the difference between the feeling generated by the South Yard and that by the campus of Harvard Business School (1924) on the opposite side of the river, which seems to have sprung into being all on the same day (except, of course, for additions since World War II).

Each house has its own character. Kirkland House, composed of Smith and Bryan Halls, may be the least interesting, because of its rather fussy detail and the rigid planning of the main quadrangle (Fig. 387). The design is conservative, with a profusion of somewhat dry ornament typical of the early 1900's. The formal symmetry of the completely enclosed main courtyard, which permits no irregularity and provides no visual escape route other than by the axial entrance arches, is confining and rather boring because it can be read at a glance; much livelier is the long narrow court formed by the addition of Bryan Hall (1931) and closed off from Dunster Street by the fencing and planting around the master's house garden. Hicks House as the house library is a welcome and imaginative relief and represents Harvard's first effort to preserve an early Cambridge building other than its own (Fig. 128). The large mass of the whole complex works well in screening off the quiet tree-filled yard from noisy Boylston Street.



388. ELIOT HOUSE, 1930. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

Eliot House (1930) uses an irregular plot to great advantage and is one of the best designs from an architectural point of view. A skilful grouping into taller pavilions and lower connecting wings keeps this dormitory from looking like a barracks (Fig. 388). Most effective is the way the south side of the complex opens toward the river, thus relating the restricted space of the courtyard with the larger space of the parkway. Interrupted only by an iron fence and a monumental gate, this open interval is skilfully connected to the tall corner pavilions by intermediate blocks of only two stories. Another successful feature is the way the important Boylston-Memorial Drive corner, an acute angle, is counteracted by a concave facade accented by colossal pilasters and great roundheaded windows. This handsome facade serves as a fitting introduction to Harvard for those approaching from the river. The attached master's wing also adds variety and keeps the domestic scale from being lost. A less felicitous aspect of the design comes from stacking the dense volume containing dormitory rooms above the larger, empty volumes containing public rooms, as indicated by differences in fenestration; another is the ambiguous manner in which the heavy Eliot tower appears to rise out of the bulky roof of the main block. On these points one's objections are academic, based on the realization of what structural difficulties such solutions would have posed to 18th-century builders limited to wood and masonry construction; there is no structural reason, of course, why this cannot be done with steel and concrete.

Together Standish and Gore Halls form Winthrop House, although they were built as separate freshman dormitories. Their smaller size and simpler massing and the different angles from which they face the river furnish a welcome variation to the larger scale of Eliot and Dunster, and one is glad they have no tower. Were this not so, the riverfront would look somewhat institutional. The way in which the two buildings are tied together by the handsome wrought-iron fence is also most satisfactory. Gore Hall is enough wider than Standish to allow the facade to be more elaborate. The seven central bays constitute a frontispiece

389. GORE HALL, WINTHROP HOUSE, 1913. SHEPLEY, RUTAN & COOLIDGE

faced with limestone, of which the middle three are accented by engaged columns (Fig. 389). Less heavily ornamented are three bays of the wings, also built of limestone in contrast to the brick used elsewhere. Conscious of its English Palladian antecedents, the windows of Gore Hall appear to be graded in size, an effect largely achieved by a skilful variation in the design of the framing elements rather than by differences in size of the sash—a refinement that even pre-World War I building technology could not afford. This is one of Harvard's handsomest buildings.

Built twelve years later than Standish, of about the same size, and similarly planned for freshmen, McKinlock Hall repeats the same basic U-shape, but greater elaboration in detailing illustrates the more historical frame of reference the Shepley office had evolved for Harvard buildings by the middle twenties. When McKinlock was incorporated as part of Leverett House in 1930, a dining hall (including a penthouse residence for the master) was added on the only available free land, a plot, unfortunately, much too small, with the result that the new building crowds the original one uncomfortably. North of Mill Street one more section of Leverett House (then called Mather Hall) was erected. Designed around a tight, small courtyard, this structure was seconded to Quincy House when the latter was established in 1958, and one wing of the 1930 building was demolished, to open what remained toward the yard of the new house of which it became a part.

The ingenious planning of Dunster House made it possible to place an enormous and symmetrical building on a small irregular plot. The heavy forms and large scale are more reminiscent of English 18th-century prototypes than of American ones, but the three pediments with heraldic shields and ornate scrolled enframements recall the Holden arms set upon the chapel given to Harvard in 1742. It is fitting that the first and last in the sequence of five houses fronting the river should have heavy, dominant masses and towers, while lower, less bulky structures are contained between them.

Adams House consists of an interesting assortment of structures dating from 1760 to 1931, including an important 18th-century mansion, two former Gold Coast luxury dormitories, a private squash court, and Russell Hall (1900), completely altered in 1930 to a handsome five-story Georgian Revival structure which provides the focal point for the rather disparate elements that constitute the whole (Fig. 390). Strategically placed at the corner of Bow and Plympton Streets, this main building dominates the group by means of its tower-like mass, the cupola riding above the hip roof, and by the heavy stone enframement of windows. This tower picks up the heights established by the older dormitories that were combined in Adams House, yet it is separated from them by Plympton Street on one side and by the low, extremely handsome pavilion with a temple front that serves as house dining hall. An interesting historical note is that the block containing Randolph Hall, Apthorp House, and the squash courts was obtained by the university in 1916 in exchange for College House on Massachusetts Avenue, the building that had served the college as a dormitory since the first unit was put up in 1832.

Largest and perhaps handsomest of all is Lowell House, which occupies the knoll upon which the first settlers had planned to build their fort. Since Lowell House consists of two quadrangles completely enclosed by massive buildings, the result could have been confining and monotonous. Such a feeling is avoided by skilful exploitation of natural irregularities in the topography and by the masterful way the massing of buildings on different sides of the quadrangles are varied. The entrance under the tower is at the highest elevation, and here also the block of buildings is at its greatest height: four stories, a raised cornice, and a high basement (Fig. 391). The dining hall and lounges on the opposite (south) side of the court not only rise from lower ground but are of a single story in height. In this manner one seems to look over the roof of these lower buildings when entering the enclosure. Units on the east and west sides of the court are placed at intermediate levels so that there is constant variation in floor heights, and the wing on the east is lower than the other because it forms one side of the smaller quadrangle. The master's house in the southwest corner is also differentiated in massing. Furthermore, the two courts are connected by interesting vaulted passageways which change levels; thus the spaces of these quadrangles are varied and flowing rather than static and restrictive, as at Smith Hall.

Although the houses with their consistent style and use of brick contribute greatly to the character of the South Yard, they are not the only factor to give it shape. Large and imposing buildings alone can create an institutional flavor (as is the case at Yale) if the neighborhood does not possess some variety in outdoor spaces and buildings. Here the placement of houses along Memorial Drive is irregular and unmechanical, necessitated by bends in the river. The tree-filled green between Eliot House and the athletic building constitutes a quiet oasis of irregular shape, where the only movement is pedestrian because any cars here are parked ones. (This area was greatly improved by the removal in 1960 of the squash courts.) Other positive elements are the open field north of Lowell House and several large gardens, while variations in building size also contribute. Most skilful and effective is the way the four-story mass of Gore Hall on one side of narrow Mill Street is opposed by sections of Lowell House that are only one or two stories high. Also essential to maintaining a non-institutional scale are some private houses, especially those built of wood or having yards that introduce

390. RUSSELL HALL, ADAMS HOUSE, 1900; 1931. SHEPLEY, RUTAN & COOLIDGE; COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

variations in the streetscape. Particularly important to the pleasant environment here are houses at 17 and 21 South, 46, 53 and 69 Dunster, and 41 Winthrop Streets (Figs. 151, 168). Even the enormous cube of the Indoor Athletic Building does not overwhelm the neighborhood with its giant scale because the building materials are consistent, the design is simple, and the many windows echo the wall pattern of neighboring buildings.

391. LOWELL HOUSE, 1929. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

The hint of a rural environment conveyed by the pleasant lawns and courts of the South Yard is magnificently amplified in the park area along the Charles River and beyond that by the campus of the Business School. The river is spanned by two handsome brick bridges, the Anderson (1912) and the Weeks Memorial (1926), the latter a footbridge that also carries steam pipes to the Business School buildings. Weld Boat House, a picturesque building from the pre-Lowell era, was erected in 1906.

The development of the South Yard was slow and hesitant, spanning the last years of the Eliot administration and most of Lowell's. Even after the idea of a Yard had been accepted, the concept of how it should be designed changed drastically, beginning as a mere parkway connecting Harvard Yard with the river and expanding eventually to include the entire area between DeWolfe and Boylston Streets. The present concept of self-contained residential nuclei connected by informal, tree-filled parks and streets with little traffic evolved only gradually, and one is thankful that the realization of the project was delayed long enough for the present scheme to mature.

The zone south of Mt. Auburn Street known as Riverside was not an attractive one in the late 19th century (Figs. 67, 392). Containing a mixture of modest residential and commercial buildings, its riverfront was clogged with an ugly assortment of wharfs, coal yards, storehouses, and a power plant. As late as 1898 Harvard was disposing of property south of Massachusetts Avenue instead of acquiring it. When planners and alumni began to discuss the possibilities of

392. AERIAL VIEW OF 1875 SHOWING SOLDIERS FIELD, RIVERSIDE, AND RESIDENCES FRONTING QUINCY ST.

improving the area for the benefit of the school, President Eliot made it clear that Harvard had no funds for such projects; anything accomplished here would have to be done with outside finance. He also opined shrewdly that an expression of university interest in such a project would cause land prices to soar.

Attention was first called to the area in the late 1890's by discussions of improvements in the Charles River basin. It was proposed to construct a tidal dam that would stabilize the water level, to landscape the river banks, and to line the river with carriage-ways. The earliest scheme (about 1894) for extending Harvard toward the river was a proposal by Charles Eliot, the president's son, to improve the Brighton lands—the Longfellow meadows and Soldier's Field—already in university ownership. The idea of a physical link between Harvard and the river first appears, however, in the Olmsted plan commissioned by the Overseers in 1896 (and mentioned earlier in relation to the North Yard) (Fig. 374). This plan suggests a "park approach" from the river, that is, a boulevard connecting the Yard with a carriage-way along the river. Typical of "City Beautiful" planning of that period, the proposal does little more than replace Plympton Street with a 70-foot wide, tree-shaded avenue, whose axis is shifted slightly to conform to that of a hypothetical group of buildings to be erected in the Yard, while ignoring the shabby Riverside district through which it passes.

Such a scheme was soon rendered obsolete by the construction between 1892 and 1903 of a series of costly dormitories along Mt. Auburn Street financed by private capital. Fresh impetus was given the movement to connect Yard and river by the actual construction in 1902 of a stretch of riverside parkway extending between DeWolfe and Boylston Streets. Now the proposed connecting boulevard was shifted to DeWolfe Street to avoid the new dormitories (Fig. 393). This stage of the planning is illustrated by the 1901 proposal by F.L. Olmsted, Jr. for the widening of DeWolfe Street, in which that thoroughfare is envisioned as a spur off the river parkway leading to Quincy Square and the Yard. A remnant of this plan is the Class of 1880 Gate facing Quincy Square, an appropriate architectural focus to terminate the proposed DeWolfe Street axis. This gate at the bottom of a modestly high terrace has never led anywhere, neither when erected in 1905 and Professor Palmer's house stood off center on top of the terrace nor today when blocked by Lamont Library; its only purpose was to provide a monumental terminus for the unrealized boulevard.

Early in 1902 a group of Harvard alumni mounted a campaign for funds to augment those allotted by the city and Park Commission to enhance the proposed aggrandizement of DeWolfe Street. At this point, however, a recent Harvard graduate, Edward Forbes, entered the picture. Although he had contributed to the boulevard project, he sensed deficiencies in it. Very soon he realized the greater possibilities of acquiring the entire area between Mt. Auburn Street and the river, an ambitious venture in which he was able to rally the support of a number of influential alumni.

The story of his activities and some of the designs proposed for the improvement of the area were presented as part of an exhibition honoring Mr. Forbes in 1971. It was mounted by the Fogg Museum of which Forbes for many years was

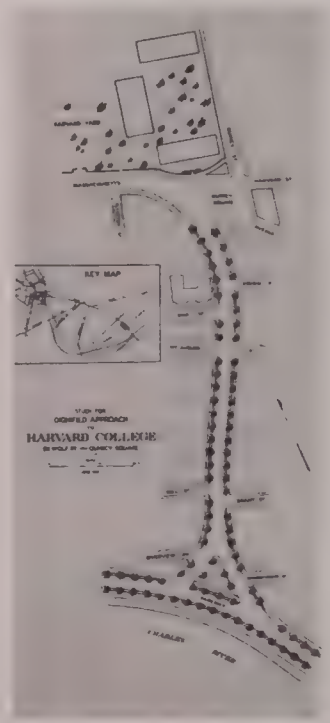
director, and the exhibition catalogue chronicles the many stages through which plans for the Yard were to pass as well as the reluctance of the Corporation to commit itself to expansion into Riverside. Beginning late in 1902 Forbes formulated a plan to purchase and consolidate the numerous small properties (mostly in poor condition) along the riverfront, to hold them until Harvard was ready to develop the area, and then to offer the property to the University at a reduced figure. Working with a small committee (of which Nelson Perkins, Augustus Hemenway, Harold Coolidge, and James Burden were important members) Forbes established the Harvard Riverside Associates and shortly raised $400,000 enabling the purchase of about 7.5 acres. Despite the depression of 1907, the associates held the land and in 1911 agreed to turn parts of it over to the President and Fellows at any time the university required. The associates, however, retained the right to approve any plan for laying out this area; they also stipulated that some of the land must be maintained as open space and that vistas to the river and parkway be provided. The first section of land bordering the river was deeded to Harvard in 1912, and construction of dormitories began in 1913. In this context it is interesting to note that it was 1916 before the university began actively to purchase real estate south of Massachusetts Avenue (as has been seen earlier).

Not only did Forbes and his associates give Harvard this important piece of real estate, they stimulated imagination as to ways in which the property could be used, a process evolving over a twenty year period. As to the actual physical form the development should take the associates had no fixed ideas, though Mr. Forbes expressed hope that Harvard would find a way to utilize the land in a creative and beautiful manner, somewhat as Oxford had taken advantage of the River Thames. An early proposal was to use the space for a small, privately funded college, the first of several that might follow. Fairly soon, however, the idea emerged of a "new yard," a concept refined by President Lowell in the first year of his tenure as a plan for a grouping of freshman dormitories. Although this was Lowell's idea, he consulted at the outset with Forbes and solicited his assistance in a campaign to raise funds to realize it. The later conversion of the freshman dormitories to the house system for upper classmen required many millions of dollars; but when the time for this step came, the university already held title to the land upon which the new structures could be built, thanks to the far-sighted Harvard Riverside Associates.

During their early years the associates also encouraged various architects who were Harvard alumni to submit suggestions and sketches for developing the area. Some of the early proposals, such as those of Warren and Whetmore of New York City, were formal and grandiose. In one case they proposed to clear the area completely to form a huge mall extending from Massachusetts Avenue to the river. Here an extension to Gore Hall (a mammoth structure that foreshadows Widener Library) turned its back to Harvard Yard and its colonnaded facade toward a new university center south of Massachusetts Avenue. Great blocks of buildings would flank the mall in a manner consistent with the Imperial image of the period and reminiscent of Columbia University. Had such a scheme been followed, Harvard Yard would have been demoted to the status of a "backyard," and, given the way cars now litter the streets near Harvard Square, the wide boulevards of this mall would have rendered this area today little more than a monumental parking lot.

A sounder scheme of 1903 by the Olmsted brothers (Fig. 394) reduced the mall to one-block width by clearing buildings between Linden and Plymouth Streets (except for Randolph Hall, a new and expensive private dormitory). South of Mt. Auburn Street only north-south streets are retained, except for South Street (which runs east-west), thus further expressing the new Yard as a southerly extension of the old. The buildings here are conceived as a series of courtyard-centered complexes, each rather independent and with large, fairly open cores; but the disposition of the buildings disregards the natural curves of the river. This concept has some relation to the cellular arrangement of English colleges and contains the germ of the final Harvard houses. The proposed block-wide mall running from Mt. Auburn Street to the river was undoubtedly occasioned by the requirements of the Riverside Associates for open space as well as for access to the river from buildings located in the interior. Still another design was prepared in 1913 by E.J.A. Duquesne of the School of Architecture.

393. STUDY OF PROPOSED WIDENING OF DEWOLFE ST., JUNE, 1901. J. C. AND F. L. OLMSTED, JR.



394. PLAN FOR THE DEVELOPMENT OF THE LAND HELD BY HARVARD RIVERSIDE ASSOCIATES, 1903. OLMSTED BROTHERS

395. COOLIDGE PLAN III (STUDY FOR THE FUTURE GROUPING OF BUILDINGS AT HARVARD UNIVERSITY), MAY 1922

It was left, however, to Charles A. Coolidge, then senior partner of the Shepley firm, to produce the design that would be used. His first project, presented as early as 1909, proposed a system of somewhat rigid interlocking courts and buildings, but by 1922 he had almost arrived at the final solution in which the South Yard was restricted to the area south of Winthrop Street (Fig. 395). Here all streets save DeWolfe and Plympton are eliminated and five widely spaced buildings are placed in relation to the river, their courtyards opening toward it. No attempt is made to penetrate the built-up zone north of Winthrop Street and thus to connect this South Yard with Harvard Yard. Indeed no further effort to create a link between the two Yards would be made until the construction of the Holyoke Center arcade and Forbes Plaza in 1960-67.

Harvard Since Lowell

Hampered first by the Depression and then by restrictions imposed by World War II, the administration of President Conant (1933-53) had little opportunity for building, and only ten structures were erected during the twenty years that Conant was president. During his presidency, however, Walter Gropius was appointed to the faculty of the Graduate School of Design, an epoch-making event, which revolutionized architectural education in this country. Although the appointment of Gropius was to influence American architecture, more than did all of Lowell's buildings, Harvard was slow to avail itself of his assistance; and he taught here for twelve years before being invited to design a Harvard structure.

The first large building undertaken during Conant's term was Littauer Center, designed by the Shepley office, which rose in 1938 near the former site of Hemenway gymnasium. About this building with its great Ionic portico there is an undeniable grandeur, and the use of large blocks of white granite throughout reminds us that there is no substitute for the beauty and opulence of fine building material. The last Harvard building in the imperial tradition, this structure is a conscious adaptation of Charles Bulfinch's design for Massachusetts General Hospital and represents the last serious attempt at Harvard to squeeze modern interiors inside an architectural envelope of traditional form, an imposition which impaired both function and design.

The siting of the building on the axis of Peabody Street, now used for north-bound traffic on Massachusetts Avenue as it leaves Harvard Square, has much more visual impact today when one's gaze is channeled toward the facade by the ramp of the Cambridge Street underpass than it did when the Center was first constructed (Fig. 396). But impressive as the front of Littauer is, the siting of the building in relation to the North Yard just behind it is most unfortunate, and the present park-cum-parking lot filling the space between Littauer, Austin, Jefferson, and Paine Halls is surely the most awkward public area at Harvard.

Clarification of this indecisive region was not aided by the construction—within a few months of Littauer Center—of the new Hemenway gymnasium (1938). This small building introduced yet another scale, building material, and style of architecture to an already confused environment. The color and texture of its brick masonry would have been good in almost any other place, and its design is adequate; but something much larger and truly inspired was required here to create spatial order and to harmonize the disparate architectural elements present.

The location of the Graduate Center at the other end of the North Yard was handled more skilfully. In this case the south facade of Harkness Commons acts as a terminus for the walkway parallel to the east front of Langdell Hall, and the white limestone and blue glazed brick of the new building is harmonious with this venerable neighbor (Fig. 372). Yet the two buildings were not really brought into a tightly integrated relationship with each other until the construction of Roscoe Pound Hall in 1968.

396. LITTAUER CENTER, 1938. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

The Graduate Center, a cluster of seven dormitories and a commons building for graduate students, has considerable historic importance as the first commission (1949) given to Walter Gropius by Harvard and one of the first major commissions of The Architects Collaborative, the association of Gropius and several young architects, some of them former students. The grounds possess an openness and spaciousness uncommon for Harvard, because this complex occupies the site of Jarvis Field. Not only are the trees here younger but they seem to be less densely planted.

This complex is a more orthodox example of the International style than was Lamont Library built two years earlier, viz., the severe geometry, flat roofs, strip windows, frank expression of structure, elimination of ornament, and the straightforward use of iron, concrete, brick and glass (Fig. 397). Cream-colored brick is used here in place of the white stucco that twenty years earlier would have been used in Europe. The excavation by four feet of the extensive central court is difficult to rationalize on the grounds of pure function. It has been defended as necessary in the naturally swampy area (site of the 17th-century Pine Swamp) to provide a retention basin to avoid flooding of adjacent streets during storms and secondarily to provide an ice skating rink. Its main purpose, however, is to create an interesting change in level and to provide the center with a core of its own, distinct from Holmes Quadrangle to the south. The severity of the International style is relieved by the World Tree, a large metal sculpture by Richard Lippold on the terrace, and within by murals by Albers and Miro.

When erected in 1949 this complex was one of the few examples of adequately understood International style architecture in this country and the enthusiasm it engendered was great. But with the perspective of almost a quarter-century, one questions what was achieved by the deliberate renunciation of traditional Harvard red brick and is grateful that the group is relegated to one corner of the larger campus, while being sufficiently large to constitute an environment of its own. The same group of buildings on the river near the undergraduate houses would have been disastrous. The Graduate Center also provides a telling comparison with buildings designed within the last ten years, to show how rapidly and how far modern architecture has moved from the sparse functionalism of earlier days.

397. HARVARD GRADUATE CENTER, 1949. THE ARCHITECTS COLLABORATIVE

The Aiken Computation Center in one corner of Holmes Quadrangle, a hodge-podge of a building (1946), serves as a transition to the Graduate Center. Actually this strange building really comprises two, one perched on top of the other. The lower was a hasty, economy-minded product of the war era, which uses contiguous wood sash for the horizontal strip of windows with little thought of appearance. When expansion was required eighteen years later (1964), the old structure was deemed inadequate to carry an additional story, to support which a new series of concrete piers were added just outside the perimeter of the old building, and these carry a system of girders to support the addition. The height of the girders creates a dead space above the roof of the original building that is too low to put to use as office or storage space; it is expressed on the exterior by a band of vertical louvers of wood. The rather tricky stair-tower midway between Aiken and Pierce Halls, and connected by glassed bridges, was constructed at the same time.

The contribution of the Gordon McKay Laboratory (1951; the Shepley office) to the Oxford Street scene has already been discussed. Certainly the building did not create as effective a corridor wall as it now does before the top two stories were added in 1961 (Fig. 381). Although the detailing of McKay is not distinguished, the simple mass of the building, uncomplicated by salient architectural features, illustrates the positive role an auxiliary building not aspiring to be an architectural showpiece can perform in blocking in an architectural space. The Cambridge Cyclotron of 1947, a sequence of large forms of no architectural interest, has fortunately little visual impact on the North Yard.

Within Harvard Yard two libraries were built under Conant, one just before, the other immediately after, World War II: Houghton Library (1941; Perry, Shaw and Hepburn) and Lamont Library (1947; the Shepley office). One should really call Houghton a Federal Revival design, since the elongated proportions of the main story and the delicate window caps supported by consoles derive from the third Harrison Gray Otis house (1804) on Beacon Street in Boston. About this design there is a refined, somewhat precious quality, which is perhaps appropriate for a structure housing rare books and manuscripts. It seems, however, a rather small and esoteric building to place on the only side of Widener that might have permitted expansion in the future, a mistake realized as plans are formulated for the future Pusey Library, although current schemes place that new building entirely underground in the hill which both Houghton and Lamont face.

Lamont Library, on the other hand, is Harvard's first contemporary building (Fig. 398). It replaces the Dana-Palmer house on the knoll above the Class of 1880 Gate. The use of brick and limestone, an essential component in this part of the Yard, was fortunately respected, but since the immediate environment was relatively free of buildings, the design could indulge with impunity in

398. LAMONT LIBRARY, 1947. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

horizontal banks of windows. Its only near neighbor, Houghton, is somewhat too rarified to have offered a reasonable model for an undergraduate reference library, and fortunately the design is calm enough not to compete actively with Houghton, Wigglesworth, the Harvard Union, or the handsome memorial gateways.

One other interesting building of the Conant regime is Allston Burr Lecture Hall (1951; the Shepley office), a textbook example of the International style twenty-five years after the fact, but one that illustrates the phase of modern architecture when it was still fashionable for a building to be functional (Fig. 399). The irregular massing clearly expresses the two large, fan-shaped lecture halls along with auxiliary lobbies and seminar rooms fitted to a restricted site. A skilful organization of strong geometric forms provides the principal aesthetic interest, a geometry the more emphatic because of the light grey-buff brick masonry. The building's isolated position minimized the dissimilarity of its architectural design and material from traditional Harvard buildings.

399. ALLSTON BURR LECTURE HALL, 1951. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT

Conant's administration also saw the transfer of the functions of the Botanic Garden and Gray Herbarium to other university departments and the appropriation of the site for university housing, the Botanic Garden apartments (1949; Des Granges and Steffian) mentioned in relation to their site in Part Three.

The term of President Pusey (1953-71) by contrast was an era of prolific building. With twenty-three projects approaching the record (thirty-seven) achieved by Lowell, this administration undoubtedly surpassed it in square-footage and cost. Furthermore, the administration followed clear architectural precepts: abandoning the Georgian Revival style—which had become almost synonymous with Harvard—in favor of modern design; instituting a policy of using many architectural firms, several of them of international reputation, rather than of retaining one firm; and sponsoring the first high-rise structures. It is worth noting that in this period Harvard (along with Yale and numerous other universities, corporations, and governmental bodies) set out deliberately to commission work from architects of national repute. Under this policy one collects buildings by famous architects almost as one acquires paintings by well-known artists.

While the Pusey years saw the addition of no new structures to Harvard Yard, they involved an unusually meritorious campaign of renovation of old buildings there. The old dormitories were modernized in 1961, a process principally affecting interiors, in which stucco was scraped away to reveal some brick walls, windows were refurbished with functioning and functional inside shutters, and certain fire hazards were reduced—this under the sensitive direction of The Architects Collaborative. Lehman Hall was reconditioned to serve as the commons for Dunster House, a change producing several handsome interiors, and Emerson Hall was modernized. Harvard Hall also was subject to radical changes in 1968-69 to bring it up to fire-safety standards. During renovation, sections of 18th-century woodwork in the "Philosophical Chamber" were uncovered and with it traces of the flock wallpaper presented by John Hancock. Modern fire exits were installed without disturbing the building exterior. The most remarkable renovation, however, was that of Boylston Hall in 1959, a heretofore gloomy monster built just over a century earlier (Fig. 348). What emerged is one of the most splendid buildings at Harvard, and The Architects Collaborative who carried out this work are to be applauded.

The upward surge in enrollment and research following the war caused a surge of building, which overflowed Harvard and North Yards. In a crescent-shaped zone adjacent to the old Yard, five large and important buildings were constructed. Since their scale and style of architecture is so different from anything the university had known before, it is fortunate that they were not inside the Yard. Furthermore, some are so narcissistic as to be quite disruptive to their surroundings. Others show remarkable degrees of responsiveness to the environment, although this awareness is expressed in different ways. With each building—save one—the work of a different architect, we see the results of the policy of collecting famous architects.

Carpenter Center for the Visual Arts (1961) preempts the visitor's attention as it elbows two large and sedate red brick structures and confronts a third (Fig. 400). Critical opinions about Carpenter vary widely, depending upon whether

400. CARPENTER CENTER FOR THE VISUAL ARTS, 1961.
LE CORBUSIER; SERT, JACKSON & GOURLEY

one looks at the building as an historical document, an independent work of art, or an adjunct of an urban environment. Historically it has unquestionable importance as the only building in the United States by Le Corbusier. In the over-view of that master's career (begun forty years earlier) this building of 1961 is, however, in no way a milestone and contains no ideas he had not already explored. As an expression of the International style, which flowered in Europe in the 1920's, it serves well enough: the calisthenics of the design demonstrates the flexibility of reinforced concrete to meet any demand placed on it by the designer and the fact that walls need not play a part in holding up a structure. Carpenter also expresses the freedom the designer now enjoys to create empty volumes as well as solid ones and to assemble, organize, or integrate them as his creative will directs. Since solids and voids can be so dynamic and interesting in themselves, there is no need to rely on ornament for visual relief. The exterior of Carpenter Center expresses the fact that different activities are carried on within the building. And the design is controlled by a fixed system of proportions based on a module, a matter with which Le Corbusier, if not most other architects of the movement, was much concerned.

Although a somewhat old-fashioned criterion today, an important gauge of success in an International-style building before World War II was function. By such a standard, the ramp that curls up and through the building with such showmanship is meaningless; and one must question whether the activities housed within the building really require so many and such varied shapes as the exterior expresses; almost certainly there is little practical use in the Cambridge climate for the extensive roof gardens and semi-subterranean open areas.

Looked at purely visually, as a monument, a giant piece of sculpture with its own independent life, Carpenter Center is forceful and dynamic. Kaleidoscopic in its variety, it is a different composition from every angle from which it is observed. The variety of shapes, openings, angles is puzzling when taken bit by bit, and the composition only holds together when grasped as a whole, as an equilibrium of opposing forces; solids and voids, light and heavy, blunt and sharp, frenetic acticity and powerfully static shapes. In fact, these contrasts are only resolved as the visitor abandons himself to the work, moves through it, explores it, becomes a part of it in the same way as he experiences a Baroque monument. Most students who work there approve of it; and while one may question whether Carpenter Center is a "functional machine for teaching," it unquestionably constitutes a promethean symbol of creativity and mastery of technology.

The matter on which the Le Corbusier building cannot be excused, however, is its intolerable disregard for its environment. The fact that the architect was contemptuous of this site and surroundings is no reason for dismissing the subject, since the building cannot be seen out of context, nor Quincy Street be seen without the building. It disassociates itself from its surroundings in every way possible: choice of materials, the restless composition, the crazy angle at which it is placed. It is said that the architect spent a weekend in Cambridge to view the site, at which time he somehow got the mistaken impression that an important line of march extended from Quincy Street northeast to Broadway—hence the useless ramp. It is ironical that one of the few times a Harvard building was provided with an adequate "back door," it did not need one!

Although no one would defend Fogg Museum or the Faculty Club as masterpieces of architecture that should have dominated the character of the building erected between them, any structure placed there ought certainly to have taken them and the proximity of Harvard Yard into consideration, not set out to ridicule them. The fact that Le Corbusier did not here consider the environment will not surprise anyone familiar with his work; the kind of building he would design was predictable. The real blame for this ill-fitting building lies with university officials who chose this architect to design a structure for this particular site. As long as Harvard was collecting buildings by famous architects, it was indeed à *coup* to get one by Le Corbusier; but an appropriate location should have been provided, a site, for example, like the top of Observatory Hill. Yet Le Corbusier would seem to have been an ideal architect to design a building for the creative arts.

Construction of Holyoke Center followed Carpenter Center and the architects for the first—Sert, Jackson and Gourley—were also associates for the other. Sympathetic to and very much influenced by Le Corbusier, the Sert office nevertheless produced a much better piece of urban architecture. Holyoke Center, which houses many activities—the university business offices, the infirmary, and several academic divisions as well as numerous shops, a bank, and a garage—was built in three stages, beginning in 1960 at the Mt. Auburn end, and finished in 1967. The architecture of Holyoke is an outgrowth of the International-style formula, but it gives more prominence to reinforced concrete, which is used in heavy, textured masses (Fig. 401). The designers are concerned with prefabrication yet also with maintaining variety within a system of

prefabrication, as one sees in the punch-card fenestration in walls screened with precast panels. It is, however, the care with which this building is related to its particular environment and the way it enhances the whole Harvard Square area that make it so successful.

Inasmuch as the building occupies an entire block, there did not have to be concern about neighbors only twenty-five paces away, yet it is related to the requirements of the four surrounding streets. The Mt. Auburn elevation is somewhat cluttered with shading devices because of the architects' rationalization that southern exposures require protection from the sun (as if Cambridge had that much sun!). Although the projecting pavilion is useful in giving definition to Mt. Auburn plaza—as was discussed in Part Two—its facade cropped at an angle and capped by a second pavilion with a fussy vaulted roof is chaotic. Fortunately the other elevations are quieter and better. The I-shaped mass of the upper floors of the building, which corresponds to the three stages of construction, allows ample light and air in the side streets and keeps the building from looking heavy and overbearing.

One of Harvard's most interesting new buildings is Gund Hall, the work of John Andrews, Anderson and Baldwin, which houses the Graduate School of Design (Fig. 402). Its massing and the way it is sited show care for the larger urban scene. As one looks east on Cambridge Street from the new mall on top of the underpass it is now quite clear where the "campus" ends. The large six-level building located on a strategic corner furnishes a splendid backdrop to Memorial Hall, and in many other ways the design draws on elements from different buildings in the surroundings so as to pull things together visually. Most laudable is the way Gund defers to its patriarchal neighbor, Memorial Hall: the forward thrust of Gund as it overhangs its colonnade directs attention to its neighbor, the diagonal of the overhang reinforcing the pyramidal massing of the older building. As Memorial Hall conveys a ponderous sense of direction, a feeling of focusing, even reaching toward the west, it benefits greatly from the strong shape of Gund which sustains this ponderous movement. The monumental colonnade of Gund—a bit short for its imposing depth and height—directs one's eye surely toward William James Hall, a significant gesture which indicates the continuation of the Harvard "campus" on Divinity Avenue beyond the little Gothic church. A nice note on the southern side is the way the bottom edge of the Gund overhang picks up the roof line of Allston Burr Hall, whose grey brick masonry now seems less of an intrusion because of its new neighbor.

The design of Gund Hall shows how far the International style has traveled since its 1920-40 classical stage: rather than function, the design now seeks a kind of visual rationale, while the space, structural dexterity, and the innovative design suggest a Baroque frame of reference. The four tiers of drafting area stepped back on one side like a giant staircase and overhanging the other side to create a huge colonnade is nothing short of astonishing. Whether so large an undivided studio is desirable, whether the gargantuan glass roof will leak or admit too much light and heat, or how much potentially usable cubic space has been sacrificed to the colonnade are questions that would have been asked of earlier functionalists; today, however, any practical deficiency can be rectified by simply adding more mechanical equipment (which in turn places more demands on the natural environment).

401. HOLYOKE CENTER, 1960–67. SERT, JACKSON & GOURLEY

A visual rationale exists here in which the different elements of the plan express themselves on the elevation. We have four identical tiers for the four disciplines housed in the building (the bottom level is for criticism and exhibition); and differing fenestration explains the presence of offices on the north, a library in the recessed arcade, while Piper auditorium is enclosed by solid concrete walls. Whether there are compelling structural or practical reasons for the way these features are formed seems hardly a matter of importance.

402. GUND HALL, 1969. JOHN ANDREWS, ANDERSON & BALDWIN

403. WILLIAM JAMES HALL, 1963. MINORU YAMASAKI. VIEW FROM GUND HALL SHOWING CHURCH OF NEW JERUSALEM OF 1903 BY WARREN, SMITH & BISCOE

The prospect from Gund focuses on William James Hall, a fifteen-story skyscraper designed in 1963 by Minoru Yamasaki (Fig. 403). This straightforward tower provides a library and lounge on the ground floor, an observation terrace on top, and offices for behavioral scientists in between; elevators are placed in a service wing protruding from the north elevation. The system of framing creates four very large bays of 40 by 60 feet which are free of structural encumbrances so that inner partitions can be arranged at will. It also permits both main facades to be fitted with identical banks of windows run between the massive piers. About these five piers that sweep up each main face, diminishing in size as they rise, there is an undeniable grace. But if the tower is satisfactory enough in itself, its siting is not. It is entirely unrelated to any building around it; there are no structures of intermediate height placed around it to form transitions to low neighbors. High-rise buildings do not have to stand out as sore thumbs, as we know from Peabody Terrace, but William James Hall does, and all the more so for the vacant terraces, dry pools, and empty gardens surrounding it.

404. UNDERGRADUATE SCIENCE CENTER, 1970. SERT, JACKSON & GOURLEY

Prior to beginning the next building in the area, the Undergraduate Science Center, arrangements had to be made for closing the west end of Kirkland Street. Legislation permitting this was conditional on the construction of a large automobile underpass on Cambridge Street. This underpass, constructed in 1966, is spanned with an extensive covering that provides a pedestrian crossing at grade level and a very handsome grass mall. While recording the topographical changes in the area around Memorial Hall, one must also note—and note with appreciation—Harvard's efforts to preserve the Jared Sparks house, home of the college's eighteenth president and one of the most important residences in the city. The move in 1968 from 48 Quincy Street to the present location on Kirkland made way for the erection of Gund Hall (1969).

The newest and one of Harvard's largest buildings is the Undergraduate Science Center, designed in 1970 by the Sert office and completed late in 1972 (Fig. 404). Although not entirely satisfactory from a visual standpoint, the siting of the building is nothing less than masterful. Oriented to the old line of Kirkland Street, as insisted upon by university officials, the placement of the building resolves the dynamics of an environment which had heretofore been chaotic. It defines the mall that overlies the Cambridge Street underpass and forms an essential link between the old and the North Yard; it respects Memorial Hall, the dominant building until now, by providing a kind of deflector to focus the dynamic outreach of the old hall in the direction of the new mall. (Littauer Center, the neighbor to the west, is so preoccupied with its commanding view of Harvard Square that it remains oblivious to the new building.)

Since the space of the mall is limited, it could easily have been overwhelmed by placing a large mass too close. The designer of the new building avoided this by providing it with a low barrier set parallel to Memorial Fence, formed by the facade of the lecture halls located in front of the nine-story spine of the new center. Projecting from this central mass and forming a transition between it and the mall is the stepped pavilion whose six setbacks make the necessary transition in scale, while the corner of this pavilion aligns visually with the facades of Littauer and Memorial Hall. An intermediate wing of three stories aligned with Kirkland Street is large and simple enough to enframe but not so large as to block the view towards Memorial Hall; on its eastern elevation the science building appropriately respects the line of McKay laboratory and reinforces the Oxford Street corridor leading to the hall. Though one might have wished for a more prominent facade to furnish a decisive terminus for Kirkland Street, such could not have been provided without creating a form competitive to Memorial Hall. On its north side the new building simply drops off like a huge cliff, about the only solution, since the main block had been pushed as far back from the mall as possible.

Compared to the logical siting, the elevations are agitated and do not explain interior function as clearly as one might suppose. The identity of the two-story section along Kirkland Street as a library, the grand "stair steps" as office areas, and the one-story polygonal area in the foreground as lecture hall space (actually there are four halls) are "readable." The six-story backbone of the building as laboratory space is also comprehensible, except that the next-to-top story, which looks just like the others, is not for laboratories at all but, together with the solid-wall area above, provides an undivided space for air-conditioning equipment. The giant boxes at each end of the roof are water-cooling towers which will provide not only for this center but eventually for all Harvard buildings. The towers are connected with a gargantuan pump room in the basement—a magnificent Piranesi-like space—that is in no way indicated on the exterior. The air-conditioning boxes on the roof may look like gross visual exaggerations until one realizes that two-fifths of the cost of the structure (approximately $25 million) was devoted to air-conditioning equipment.

As so often in Sert designs, the south elevation is too complicated. Both fenestration and precast panels are less interesting than most of the Holyoke Center elevations, and the silhouette is confusing. This is particularly so when the building is observed from the gates leading from the old Yard to the new mall, now almost the only convenient positions from which to view the building. The real problem comes with the lecture hall area, with its scramble of exposed roof girders, boxes for mechanical equipment, and projecting exit bays, which the designer fumbles in an audacious juggling act. Nevertheless, the new Undergraduate Science Center and the underpass mall emerge as the veritable keystone of the extended Harvard campus.

In contrast to the old Yard, which has developed in the course of time a high degree of coherence, the North Yard has merely accumulated buildings. The spaces left between them often have little sense of enclosure and their architectural style has no consistency. As an example, the original music building, Paine Hall (1913; John Mead Howells), has received two additions: Eda Kuhn Loeb wing in 1955 (Stanley B. Parker) and the Fanny Mason wing (1970; the Shepley office). The first addition is somewhat historic in that it is the last Neo-Georgian building erected by Harvard in Cambridge (actually there is a later revival building at the Business School, Cotting House, 1967), to be explained by the fact that it is attached to Paine Hall and follows the original fairly well in color of brick and architectural style. If somewhat less ornate than the former, the character of the detailing is more refined, in the manner of the Adam brothers (Fig. 380). The Mason wing, however, attempts no relationship to its predecessors: indeed it increases the visual confusion already existing in this corner of the North Yard. The design dramatizes a series of visually separated planes, each overhanging the one below in a kind of inverted pyramid—a currently popular scheme reflecting a design concept established by the new Boston City Hall a decade ago—and the color and texture of its brick are like nothing else at Harvard. Coherent campuses or cities are not produced by bits and pieces like this, each conceived as an end in itself.

Starting with the original insular placement of Langdell Hall in the middle of a big field, unrelated visually to other buildings, the campus for the Law School has grown through six stages (between 1883 and 1968) into a surprisingly

405. ROSCOE POUND BUILDING, 1968. BENJAMIN THOMPSON & ASSOCIATES

pleasant environment. Credit for the present sense of place and order is due, however, to the two most recent buildings— the law faculty office building and the Roscoe Pound building of 1967 and 1968 by Ben Thompson (Fig. 405). Although entirely modern by contemporary standards, both new structures also consider their neighbors: the choice of a plum-colored brick combines admirably with the brownstone of Austin Hall, while the bush-hammered concrete recalls the limestone used for Langdell and the International Legal Studies Center. The two new edifices are also admirable auxiliary structures, their masses being extensive enough to define the space and to create a sense of enclosure for the two quadrangles, yet their forms and design not attempting to assert independence from the group by being too complex. The architect was willing to play the role of orchestrator rather than of virtuoso. It is ironical, however, that the Law School's oldest and finest building, Austin Hall, turns its back on the group and plays so small a part in the ensemble.

Two more engineering or scientific laboratories were built near the northern edge of the North Yard: the Electron Accelerator (1957) and the Engineering Sciences Laboratory (1962). The first has no architectural pretension and lacks the innate sense of proportion and material that can raise a piece of engineering to the plane of architecture. It is fortunate that this structure is so out of sight that it has little effect on the architectural environment. Although the Engineering Science Laboratory is by a well-known architect, Minoru Yamasaki, the four-story building is stilted and pinched in feeling, and there is an unpleasant ostentation about the fat, golden entrance, which contrasts awkwardly with the squeezed, hooded windows. This building is as unrelated to its location as is William James Hall by the same architect.

406. HOFFMAN LABORATORY, 1962. THE ARCHITECTS COLLABORATIVE

407. ANDOVER–HARVARD LIBRARY, 1960.
SHEPLEY, BULFINCH, RICHARDSON & ABBOTT

Already enormous, the University Museum has seen two recent additions, both designed by The Architects Collaborative. Hoffmann Laboratory of Experimental Geology (1962) is one of the successful buildings at Harvard, both as an independent design and as an adjunct to an existing building. Placed at right angles to the main facade of the museum, the laboratory clarifies the shape and limits of the green park lying between the museum and Pierce Hall and brings this previously amorphous space into an orderly confrontation with the museum facade. The new wing also screens out parking lots and the straggling north elevation of Mallinckrodt with its loading dock and enclosed corridors connecting with Converse laboratory.

The elevation of Hoffman is measured and so quiet that it does not compete with the somewhat unruly main front of the museum (Fig. 406). Without being imitative, the fenestration picks up the vertical proportions of the windows of the older structure and, as a result, the two compositions, though different in appearance, are not antithetical. The recent (1971) north wing to the museum is less satisfactory: variations in spacing of piers, the expression of a stairway, the overhanging top story, and unpredictable fenestration produce a restless design that competes with the original building. And though the wing retains a combination of brick and concrete as does Hoffman, the balance is heavily in favor of the latter, while the complicated surface patterning further agitates the design. One is thankful that this building faces the architectural no-man's-land north of the museum, not the quadrangle on the west. The addition of the University Herbarium contiguous with the old Museum of Comparative Zoology, a 1953 design by the Shepley office, has already been mentioned.

Almost forming an independent campus is the cluster of three new buildings for the Harvard Divinity School, which has grown up around Andover Hall. The most interesting of these is Andover-Harvard Library, the exceptionally handsome two-story wing designed in 1960 by the Shepley office (Fig. 407). Attached to the old hall of grey granite, the new section is constructed of a slightly pinker shade of the same material and, though the design makes no attempt to duplicate Collegiate Gothic shapes and details, it complements them admirably by means of the scale and shape of its fenestration: tall, narrow oriel windows of triangular projection. Furthermore, this L-shaped wing on the southwest corner of Andover Hall creates a screen against the ugly wooden Vanserg building, a temporary barracks, and shelters a pleasant terrace serving as buffer between the theological building and the extensive parking lots beyond.

Rockefeller Hall, situated in a delightfully secluded corner at the north end of Andover Hall, contains apartments and seminar rooms. A design in 1970 by Edward L. Barnes, the use of dark brick and tinted windows invites comparison with the recent law buildings by Ben Thompson. This one is somehow active yet indecisive, a blocky composition piled together without articulating the space between it and Andover or realizing the possibilities inherent in the unusually attractive site. On the east side of Francis Avenue, beyond any other university building, is the Center for the Study of World Religions. It is appropriate that the scale and appearance of this structure in a residential environment is domestic in feeling, looking much like a pleasant apartment complex. The center represents the first Harvard commission (1959) of Jose Luis Sert, whose own house further down Francis Avenue has some resemblances.

One of the significant educational changes at Harvard in the postwar era has been the move toward integration with Radcliffe. The architectural expression of this gradual merger has been the invasion by Harvard buildings of former Radcliffe territory on Appian Way, a trend underscored by Harvard's purchase in 1962 of Longfellow Hall, before that a Radcliffe classroom building erected in 1929, for use by the Graduate School of Education. The first new construction in this neighborhood by Harvard was the Loeb Drama Center, a 1959 design by Hugh Stubbins Associates. Although one still thinks with nostalgia of the small Greek Revival dwellings that occupied the corner and recalled a more tranquil era of Brattle Street, the new building with its pleasant garden is considerate of the environment. The combination of concrete and brick is appropriate to the neighborhood, the metal grilles keep windows from becoming too cavernous and scaleless; since the stage house is placed well to the rear, the building does not appear uncomfortably high. Careful planting, the retention of existing shade trees, and the use of brick sidewalks aid in blending the building into its setting. Indeed the substantial mass of Loeb creates a pleasant foil to the spacious garden of the Radcliffe president's house and helps somewhat to temper the sense of congestion caused by the rather ugly apartment crowding the Hilliard Street corner

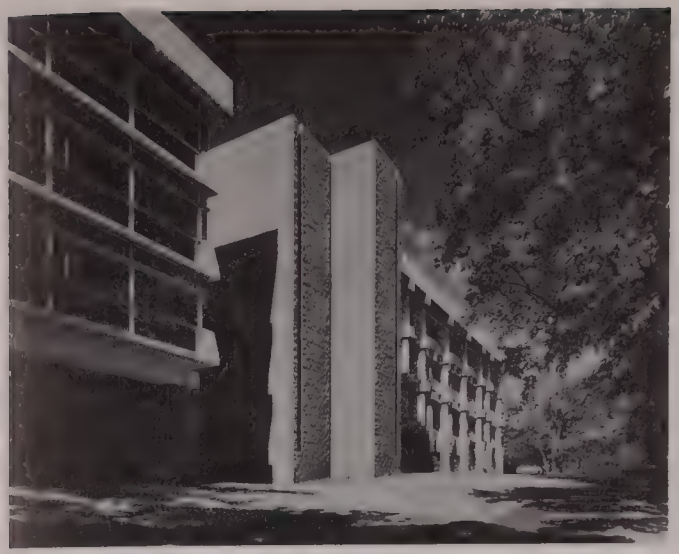
The same feeling of quiet amplitude seen at Loeb is found in Gutman Library (1969) even though design and materials are quite different (Fig. 408). A library for the education school designed by Ben Thompson Associates, Gutman is well sited, pushed out on the west corner to the building line where public space is ample, but leaving triangular gardens on the southern (Farwell Place) and northern corners of the lot where neighboring buildings are crowded. Very large windows and excavated areaways protected by handsome railings form a visual

408. GUTMAN LIBRARY, 1969. BENJAMIN THOMPSON & ASSOCIATES

409. LARSEN HALL, 1964. CAUDILL, ROWLETT & SCOTT

link with commercial structures further east on Brattle Street. The construction of both the Loeb and Gutman projects involved the removal of old houses of considerable architectural interest. Fortunately in each case it was possible to save the early buildings by moving them: the Greek Revival houses on the site of Loeb going to 9 and 11 St. John's Road, the two houses from the Gutman site to Farwell Place. These are considerate and responsible actions for which Harvard University must be gratefully applauded.

The third new Harvard building on Appian Way is Larsen Hall, the administrative center of the Graduate School of Education (Fig. 409). This building of 1964 by Caudill, Rowlett and Scott has occasioned much controversy. Though built of brick that blends nicely with that employed for the Radcliffe Yard, the towered mass and bellows-like window frames disturb some critics. Actually, the higher mass is preferable in this location to an unarticulated three- or four-story building covering the whole lot, especially so since a fringe of houses stand between the tower and the Cambridge Common. Such a tower directly on the Common would have been a mistake; recessed as it is behind a line of houses, the new building does not upset the scale. This active and ingenious design is good on its own, too: it adds a discreet note of vitality and surprise, elements that are permissible as long as the form stands alone, surrounded by lower, smaller structures. (A whole street of buildings as busy and individual as this would be intolerable.) There is one exceptionally fine view of Larsen Hall, which everyone should be aware of, that from Arsenal Square, showing the tower framed by the apartments on Garden Street with the roofs and chimneys of the Radcliffe Yard in the foreground (Fig. 57).



410. PERKIN BUILDING, 1970. CAMBRIDGE SEVEN ASSOCIATES

The Harvard Observatory atop its own hill and surrounded by tree-filled grounds is an architectural world apart. It is composed of seven connecting wings—each on a different level—strung together around the original observatory and creating in the process two irregular courtyards. Although the designer of each section was oblivious of all that had gone before, a kind of organic growth is evident in the way the observatory has expanded down the sides of the hill, each unit becoming larger and more imposing than its predecessor. Of the original 1843 observatory by Isaiah Rogers (see above), only the central block, called the Sears tower, remains (Fig. 345). Crowned by a hemispherical observation turret this small building is painted grey and can therefore be identified in the confusing array of materials and architectural styles. Today it is reached from what used to be the rear (north) side. The original entry on the south elevation, situated in a pedimented pavilion projecting from the main block and enhanced by a heavy granite door frame, is now all but inaccessible to the public, because approach from the sides has been blocked by recent additions. The present north elevation opens upon an unimposing courtyard surrounded by structures of six different building periods and of as many materials and styles of architecture. The earliest surviving addition (1892; G. Leslie Nichols), a two-story edifice with a modest Panel Brick cornice, stood free of the original observatory. Northwest of that, but lower on the slope, is a three-story wing in the familiar Neo-Georgian manner of the Shepley office (1931). The meager wing immediately west of the core dates from 1954 (W.P. Hooper) and replaces one arm of the original building. Along with the Nuclear Cyclotron building (1949), this wing represents an early and unsatisfactory attempt to domesticate the imported International style by using red brick and providing sunshades.

The most interesting aspect of the complex consists of the way in which two sets of L-shaped buildings enfold the early observatory tower on the southeast. Their placement further down the terraced hillside ensures that they do not dwarf the original tower. The earlier, enveloped in red brick, comparable to the west wing, was built in 1960 (Griswold, Boyden, Wylde and Ames); space was left between these for an ample paved court. The scale of the recent addition (1970; Cambridge Seven Associates) is monumental, with the giant beams and utility towers surfaced with rough, harrowed concrete so as to make us thankful that the building was not placed in the context of one of Harvard's Yards (Fig. 410). Isolated and set off by beautiful grounds, however, it is impressive.

Parallel with this impressive expansion of academic and laboratory facilities in the North Yard has been the drive to provide additional living accommodations for increased numbers of students. To do so has necessitated the construction of three new undergraduate houses and one apartment complex for married students as well as the purchase and conversion of existing apartment buildings for freshman dormitories. The dormitories came first with the acquisition of Hurlbut and Greenough Halls on Prescott Street in 1956 followed two years later by Pennypacker Hall at 387 Harvard Street. During the summer of 1973 work is scheduled to begin on yet another freshman dormitory on the site of Hunt Hall within the Yard.

In the South Yard the first of the new houses, Quincy House, was begun in 1958 by the Shepley office. In plan it follows the old tradition of distributing blocks of living quarters around a courtyard and of construction in brick with limestone trim, though Georgian Revival forms are here replaced by contemporary ones.

411. QUINCY HOUSE, 1958. SHEPLEY, BULFINCH, RICHARDSON & ABBOTT

The house is composed of four basic masses: a main block of seven stories (containing most of the living quarters) disposed along DeWolfe Street, a lower but more elaborate commons building adjacent to Mt. Auburn Street, a good-sized library block, and a U-shaped Georgian Revival structure built in 1930 as part of Leverett House. (As mentioned earlier, when this brick unit was seconded to Quincy House in 1958, one range of rooms was demolished in order to open the building toward the new garden of Quincy House.) The placement of the two larger blocks along streets carrying traffic ensures a quiet garden courtyard facing to the southwest. Since the library is on stilts and does not fill the entire width of the corridor between the two dormitory sections, the vista is not entirely closed off, thereby extending the sense of space at the south end of the garden, a feeling enhanced by changes in level of a terrace against the main building. This terrace provides a semi-private precinct for tutors' residences situated on the ground floor of the main block. The roof of the main building is utilized for a penthouse for the house master.

The appearance of Quincy House is quite unlike that of Harvard houses of the 1930's: pitch roofs, the use of exterior wood ornament, and window sash with muntin divisions have been eliminated, in keeping with the financial and technological conditions of 1958 (Fig. 411). Here variations in window shapes distinguish between the sitting- and bedrooms of each suite, and fenestrational differences between floors result from an arrangement by which the elevator only stops at every third floor. Architectural display is reserved for the commons and library pavilions, where more complex roofs with clerestories are provided and where the second story is emphasized visually to indicate the presence of important communal spaces.

The Leverett towers (the Shepley office), erected as an adjunct to Leverett House in 1958, were Harvard's first experiment with high rise (Fig. 412). Given a relatively small plot, the choice between a four-story walk-up dormitory covering most of the available space or twin twelve-story towers set in a garden was correctly made, both for this dormitory and for the neighborhood. Because Dunster House is built so close to Cowperthwaite Street and the commons of Leverett House so close to DeWolfe Street, the new building had to be set back from these streets to avoid unpleasant crowding. On the other hand, the towers are just enough taller than the Dunster House tower to compete with it when the whole line of houses fronting on the river is viewed from a distance. In this context it seems that the much taller tower of Mather, which has a very different dimension, is less competitive with its neighbors than Leverett towers. The non-symmetrical location of the towers—having them face different directions—and depressing the level of the central plaza are good. This plaza paved with slate and marble slabs and ornamented by two splendid willow trees provides the complex with focus, while screens of maple trees on one side and of lindens on the other provide a certain privacy. Indeed the landscaping and siting of the towers is superior to their facade design.

A two-story gate pavilion serves as a transitional link between the new towers and McKinlock Hall which contains the dining hall for the house, and the textured limestone surface of the upper level of this building—as well as its over-intricate clerestory of glass—calls attention to the house library situated above the gateway. Suites in the towers, with their commanding view of the

412. LEVERETT HOUSE, 1958. SHEPLEY, BULFINCH, RICHARDSON & ABBOTT

river, are understandably popular with students, but the design of the typical bay—a large square window flanked by small casements—lacks both scale and rationale. Surprisingly, both large and small windows light the same room, and there is no exterior differentiation between bed- or sitting-room fenestration. Also the screen of restless, polygonal panels crowning each tower calls attention to rather than disguises rooftop penthouses for mechanical equipment.

413. MATHER HOUSE, 1968. SHEPLEY, BULFINCH, RICHARDSON & ABBOTT

414. PEABODY TERRACE, 1963. SERT, JACKSON & GOURLEY

Mather House, designed by the Shepley office in 1968, is Harvard's newest undergraduate house. Though adjacent to Dunster, the modern design and dominance of concrete in the new structure does not prove disturbing to the old because of concessions in the choice of building materials and massing: sections of Mather adjacent to Dunster are constructed of brick, and a pleasant grassed court has been created between them. For another thing, Dunster House, oriented to the river, seems to turn a cold shoulder to its new neighbor. In this design one realizes again how the architecture of function has been replaced by one of rationale. Visually this building explains much of what goes on within by means of the materials employed for external curtain walls (Fig. 413). Thus reddish-brown precast concrete surfaces indicate dormitory spaces; white poured concrete, public or lounge areas; brick is used for the commons, for the house master's entertaining pavilion at the corner of Banks and Flagg Streets, and for the free-standing fire-escape tower in the courtyard adjacent to Dunster House.

The complex consists of four elements: a twenty-one-story tower, a series of five-story wings which wrap around the main trapezoidal courtyard, the commons, and the relatively small house master's pavilion. The tower stands in a minor court and draws the visitor toward it in a diagonal direction across the main quadrangle. On its facades white surfaces at various levels indicate the present of a lounge. The five-story wings surrounding the central court are of slightly different heights, but the top three levels are labeled as dormitory areas by red walls and by the fenestration: long fixed windows on the fourth floor for sitting-rooms with casement windows on the third and fifth level for bedrooms. The two lower white levels contain lobbies, house library, tutors' residences or offices, business office, etc. Through one high colonnade in this zone one gains entrance to the complex and through another is led to the commons building on the southern edge of the property.

The design is undeniably dramatic. Building forms are large, harsh, and fundamental, and the open spaces between them have an abstract clarity. In contrast to the luxuriant sunken plaza at Leverett towers, natural planting here plays a very limited role; many surfaces are paved and even the ivy bank below the windows of the tutors' houses on the east side of the main court is conceived in an abstract way as a plane with a certain uniform texture. One almost feels that the exterior courtyards and public interiors are a stage set, that they were designed primarily to be photographed.

Peabody Terrace (1963), the twenty-one-floor, three-towered complex for married students is the most successful contemporary building at Harvard and perhaps the best thing the Sert office has done (Fig. 414). It is unfortunate that the least successful aspect of the design, the riverfront, is the only view with which the general public is familiar. Here the combination of balconies and sun screens make the elevation—Sert's fateful south elevation—somewhat cluttered and gadgety. But even here there is skill in the manner the towers are varied by orienting suites on some floors in different directions. The most important thing about Peabody Terrace is the masterful way the three tall towers are rooted to the site by intermediate blocks three, five, and eight stories in height and the way the spaces between these elements are molded and shaped to form a sequence of engaging spaces. One never feels hedged in: in every space there are visual exits that invite exploration and, because of variations in the heights of structures surrounding the space, these courtyards are never static or monotonous. Contrasts between open spaces of various sizes and building forms of different shapes, colors, and textures are handled so skilfully that the design never seems repetitious, is never predictable. Here there is neither the sterility of a public high rise nor the defiance of environment as at William James Hall. Even the big garage with tiers of ramps is an architectural asset which defines the space of the courtyards. All this constitutes a pleasant, secure environment, one that allows a wide range of living styles and permits a person to retain individuality. This building should be visited by everyone who questions the aesthetic value of contemporary architecture or who feels that high rise buildings per se are antithetical to a humanistic environment.

Radcliffe College

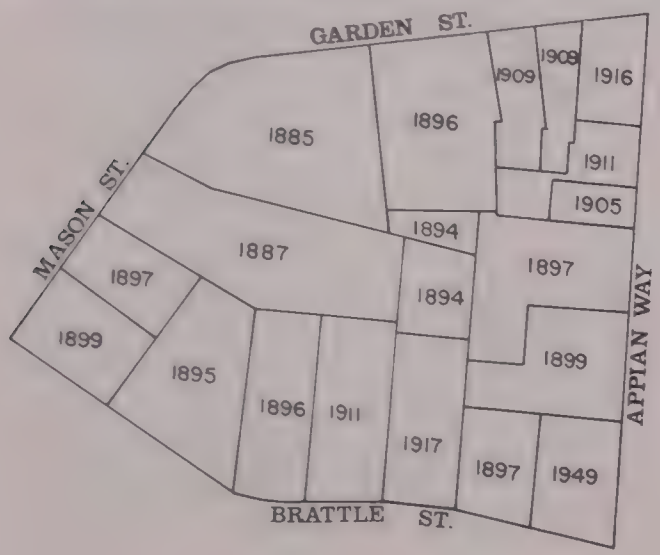
Almost a century ago when Radcliffe College was founded, the present degree of cooperation between it and Harvard was certainly not foreseen. Although a call for the establishment of a college for women was made in 1849 by the Rev. William H. Stearns of the Prospect Street Church, thirty years passed before steps were taken to implement the idea. This was done in December 1878 when Arthur Gilman, the Cambridge historian, proposed to President Eliot the foundation of a college for women. To be completely separate, with its own board of trustees, the only connection with Harvard foreseen by Mr. Gilman was that Harvard professors might be permitted to teach a course here without

jeopardizing their duties at the older institution. This President Eliot assented to, and a committee of seven Cambridge ladies was nominated to make plans for the college. After indications of willingness to participate had been secured from several professors, the "Private Collegiate Institution for Women" was publicly announced in February 1879, and in September entrance examinations were held in rooms leased for the school at 6 Appian Way. During the first term there were twenty-seven students, but as enrollment increased rooms were rented in nearby houses for classrooms, laboratory, and library.

In October 1882 the managers became a corporation under Massachusetts law as "The Society for the Collegiate Instruction of Women," though the school was popularly known as the "Harvard Annex." With the consent of Harvard in 1894 the school incorporated as Radcliffe College, the name derived from Lady Ann (Radcliffe) Moulson who in 1643 had presented Harvard College with its first scholarship fund.

The first structure to be owned by the new college was Fay House, the handsome Federal mansion facing the Common, erected in 1807 by Nathaniel Ireland (Fig. 137). The house had already been modified by the addition (about 1870) of a mansard roof. In 1890 this addition was replaced by a full third story to house the library. At the same time, a large addition was made to the rear (south) side of the house which more than doubled the space, and still another extension two years later on the west provided a small auditorium and classrooms, all from designs by A.W. Longfellow. Despite these changes, something of the chaste character of the Federal manner is preserved on the facade.

415. PLAN FOR ACQUISITION OF LOTS FOR RADCLIFFE YARD



416. RADCLIFFE YARD. FROM LEFT: SCHLESINGER LIBRARY, 1907, WINSLOW & BIGELOW; AGASSIZ HOUSE, 1904, A.W. LONGFELLOW; GYMNASIUM, 1898, MCKIM, MEAD & WHITE

In 1887 Radcliffe began to purchase the rest of the block that now constitutes its Yard, a process that involved assembling eighteen small parcels over a thirty-year period (Fig. 415). The west end was consolidated first, and construction of college buildings began with Hemenway gymnasium (1898), followed by Agassiz House (1904) and Radcliffe Library (1907; now Schlesinger Library and Radcliffe Institute). Acquisition of the eastern half of the block (except for one corner lot) was completed in 1917.

A scheme for future placement of buildings on this land, as well as on the college's purchases south of Brattle Street, was indicated in Perry, Shaw and Hepburn's "Master Plan for Radcliffe" (1926) with accompanying perspective, showing Neo-Georgian brick architecture. To complete the enclosure of the Yard, this plan called for a laboratory east of Fay House, a chapel and lecture hall along Appian Way, another laboratory at the southeastern corner, and an eastern extension to the library along Brattle; all of these were oriented inward to the center of the block. Of these only Longfellow was built (1929), while Byerly (1931) follows the plan in location though not in massing.

Fortunately the plan was never carried to completion. Today there remain three plots within the Yard where additional structures could be located, but one hopes this will never take place: the unique flavor imparted to Radcliffe Yard and to Brattle Street by Putnam and Buckingham Houses with the open space between them was discussed in Part Three (Fig. 63). The beautiful planting and intimate scale of the flower garden and terrace at the northeastern corner of the Yard offers an effective counterpart to the lawn of the quadrangle. Any new building here would have to respect the domestic scale of the remaining houses facing the Common, something that was skilfully done in the design of the two-story north wing of Byerly. For these reasons, any edifice constructed here would have to be so small as to be hardly worth building. The third free location is the last piece of the block acquired (1949) at the corner of Appian Way and Brattle Street. Now used as a parking lot, it is so hedged by arborvitae that it reads as a pleasant enclosed space.

417. LONGFELLOW HALL, 1929. PERRY, SHAW & HEPBURN

The four early buildings at the west end of Radcliffe Yard compose a harmonious group, despite differences in detail and usage (Fig. 416). Though not axially placed, the Ionic portico of Agassiz House (1904; A.W. Longfellow) forms the focal point of the quadrangle. The height of its cornice was established by the first building erected here in 1898, the gymnasium, by McKim, Mead, and White, and the same height was maintained in 1907 for the library (Winslow and Bigelow). Because of this consistency and of the basic similarity in mass of the three structures, deviation in fenestration occasioned by very different uses does not destroy the prevailing unity. The south extention of Fay House has little architectural interest in itself, but its brick walls and massing enable it to fit into the group with perfect harmony. These four structures connected by a colonnade close the west end of the quadrangle effectively but informally, and it is this informality which allows the old wooden houses on Brattle Street to combine so naturally with the larger buildings of brick to form a transitional link with Brattle Street.

Longfellow Hall (1929; Perry, Shaw and Hepburn) is a brick Neo-Georgian version of Harvard's University Hall, with paired entrances framed with pilasters and roundheaded windows in the central block (Fig. 417). The most elegant building in the Yard is Byerly Hall (1931; Coolidge and Carlson). It is actually two buildings, each scaled and sited to meet the requirements of the area faced (Fig. 418). In keeping with other structures on the quadrangle, the southern half of Byerly is three stories tall. The central third of the facade—treated as a pavilion capped by a pediment—has analogies with Hollis and Stoughton Halls, though proportions and detailing are lighter and more graceful. Kept to two stories, the northern half of the building is set on a slightly different axis so as to accommodate the line of Garden Street. A handsome architectural feature of both Byerly and Longfellow Halls are the numerous pairs of bulky chimney-stacks used as fresh air intakes. (The architect for Larsen Hall later seized upon these striking vertical masses as an important motif in his design.)

Beginning in 1905 Radcliffe acquired several important dwellings along Brattle Street. The largest and earliest of these was the Greenleaf house, used since 1913 as the president's residence (Fig. 196). The 1926 master plan placed a graduate center and a fine arts building on either side of the old mansion. The former was not built until 1955 and 1959 (Perry, Shaw and Hepburn) in the large side yard to the west, while the projected fine arts building was never built. In fact, as the long-standing relationship between Radcliffe and Harvard has increased in the last decades, Radcliffe seems to have given up building on Brattle Street and to have centered instead on the dormitory quadrangle. As an example, four parcels facing Brattle Street acquired between 1925 and 1959, including the site designated for the fine arts building, were sold to Harvard for Loeb Drama Center and Gutman Library.

A major acquisition was the 1900 purchase of the Willard Phillips estate, which accounts for most of the land now occupied by the dormitory quadrangle on Shepard Street. The Phillips mansion (called Trowbridge House) was used for a time as a dormitory and then for Radcliffe employees, and the old stable served as a field house until the playing field was covered with residential halls. The nine halls (South and North Houses) were designed by five firms over a fifty-six year period: Bertram and Eliot Halls (1901 and 1907; A.W. Longfellow);

418. BYERLY HALL, 1931. COOLIDGE & CARLSON

419. GENERAL VIEW OF RADCLIFFE DORMITORY QUADRANGLE

Barnard and Whitman (1911 and 1912; Kilham and Hopkins); Briggs (1923; Elwell and Blackell); Cabot (1936; Ames and Dodge); and three sections of North House by Maginnis and Walsh (1947-57). Each of a somewhat different design but comparable in mass, material, fenestration, and style, these buildings face inward to share the open quadrangle (Fig. 419). Variations in detail between buildings is welcome, counteracting an impersonal, barracks-like appearance, while differences in choice of materials chronicle changing building conditions and rising labor costs. Thus we see a shift from the marble trim and granite foundations of Bertram and Eliot to wooden trim and concrete foundations of the three sections of North House. Differences in spatial allowance between a private apartment and a Radcliffe dormitory can be seen by comparing the latter with Wolbach Hall, built privately in 1938 as an apartment before being acquired by the college in 1962 and added to North House; here ceilings are lower and rooms are smaller as indicated by fenestration.

Each of the three original dormitories of North House was designed with its own dining room, the latter being supplied from a central kitchen, which for efficiency's sake is located in the center of the complex. Such an arrangement forces the entrance and reception rooms of each dormitory to face outward, away from each other. Holmes Hall (1951) faces west to the pleasant new drive-walkway leading from Linnaean Street to the main quadrangle, and the pilastered facade of Moors Hall (1947) with its cupola fronts directly on the quadrangle, providing it with a focal point. Comstock Hall (1957), on the other hand, is left in a corner by itself facing east on Walker Street, even more cut off from the quadrangle by the service drive leading to the North House kitchen. A successful and most recent addition to North House is Faculty Row (1971) facing Linnaean Street designed by Gourley and Richardson (Fig. 420). Of excellent contemporary design, these buildings provide a pleasant limit to the dormitory precinct and contribute to the urban quality of Linnaean Street (as has been mentioned in Part Three).

420. FACULTY HOUSING, LINNAEAN ST., 1971. GOURLEY & RICHARDSON

For many years the Radcliffe dormitories occupied but three-fifths of the very large block between Shepard, Linnaean, Walker and Garden Streets, for six large houses fronted Garden Street. Three of these were removed in 1964 to build Hilles Library, one for Daniels a year later, and two more in 1969 to make way for Currier House, including the old Warner house designed by Henry Greenough (see *Mid Cambridge*, Fig. 116). The new buildings were designed by Harrison and Abramovitz. Currier and Daniels comprise a group of four pavilions intricately related by courtyards, terraces, or low buildings containing lobbies and public rooms (Fig. 421). The two central pavilions are situated on the main terrace, thus appearing to be somewhat more than five stories in height, the other two with the same number of floors rise from sunken gardens to four stories above the street. The dormitory is effectively isolated from the street and paved mall by a series of sunken courts so that it can only be approached by a limited number of entries, thus ensuring privacy for the inhabitants. Because many of the barriers are below ground, the feeling is anything but cloistered; indeed much of the protective gardens can also be enjoyed from the outside. The presence of pleasant, usable spaces at the lower level of the courts also permitted the dining rooms (and kitchen) to be placed there, thereby avoiding the mistake made earlier at North House.

The handling of levels is equally masterful at Hilles Library. Through a series of terraces one approaches the elevated courtyard core of the library, finding oneself there almost before being aware of it, because the rise from one level to the next is so gentle and the arcade through which one penetrates to the courtyard looks very similar to other bays on the ground story filled with plates

421. CURRIER HOUSE, 1969. HARRISON & ABRAMOWITZ

422. HILLES LIBRARY, 1965. HARRISON & ABRAMOWITZ

of glass. Another paved terrace, which can only be approached from the library interior, surrounds the building on three sides. Despite this feeling of openness, the library stands isolated in a deep garden moat, by which means entrance to the building is controlled; rooms in the basement are provided with almost as much light as those above. Here, as in Currier house, the imaginative landscaping does much to unify the different levels.

In elevation Hilles Library is somewhat restless, with many small elements working against each other (Fig. 422). The reason for the alternate projecting bays is to provide individual carrels with side light, and those who use the library are agreed that it provides spaces that are unusually pleasant and conducive to study. Perhaps the elevations look a little too complicated until one realizes that the upper floors are divided into 12-foot bays to provide alternate carrels and light sources; on the main floor these combine into 24-foot bays, the transition being made by large T-shaped piers. Both Abramovitz buildings maintain an admirable human scale—which is lost in some of Harvard's newer structures—and their striking visual qualities, as in the present example, are arrived at by way of practical humanistic considerations, not as rationalized visual symbols. Jordan House (1960; Carleton Granberg) on the east side of Walker Street looks more like a private apartment complex than a college building.

The architectural changes and physical growth of Harvard and Radcliffe, in sum, have been epochal. From a small wooden building in an out-of-the-way spot on the northern fringe of the 17th-century village, Harvard buildings have grown to dominate the Old Cambridge skyline, and farflung Harvard campuses engulf not only the site of the original village but most of 18th-century Cambridge as well. When the John F. Kennedy Center will have been completed, Harvard Square itself, encircled by Harvard buildings, will in a practical sense be a part of Harvard Yard. From a 1 1/8 acre pasture, the Harvard and Radcliffe academic areas in Cambridge alone have swelled to something like 224 acres. Always the most important secular institution in Old Cambridge (granted its early role as a school for ministers), Harvard College has not only furnished intellectual leadership for the community but has provided the economic foundation that has made possible the building and now the preservation of much of Old Cambridge as a social and topographical entity amidst the sprawling metropolis of Greater Boston. Architecturally, the leadership of the university is symbolized by a long line of buildings, extending from the Old College in 1638 to Peabody Terrace in 1963 and including Harvard (1764), University (1813), Memorial (1868), and Sever Halls (1878), as well as the houses along the river. From buildings like these have sprung the rank-and-file architecture of the city, which constitutes the principal object of study of this series of publications.

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